INTRODUCTION

CHAPTER 1

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HIV/AIDS is the most dreaded pandemic in today's world. Anti retroviral Therapy (ART) has been quite useful to provide a full life span to the people living with HIV/AIDS. However, it has got many side effects like nausea, giddiness, fatigue, body ache, laziness etc. When a person is diagnosed as HIV positive, it becomes very difficult for the person to accept the fact. This is because the society ostracises HIV+ people. This happens because people are unaware about the causes of transmission. In India awareness about the disease is spreading in all parts of the country but the level of discrimination is still the same. It is known that HIV/AIDS does not spread by touching, sharing food, handshake, sharing rooms etc but stereotypical behaviour leads to psychological problems in people living with HIV/AIDS.

The people living with HIV/AIDS (PLWHAs) have many psychological problems like stress, anxiety, depression, lack of self-confidence. These problems when not taken care of leads to other psychosocial problems like decreased quality of life, subjective well – being, subjective vitality, health locus of control, coping skills, level of adjustment and also sensation seeking behaviour. When these problems are neglected by the individual or by the family members, the effectiveness of drugs also becomes less. To deal with such psychosocial problems of people living with HIV/AIDS (PLWHA) the present research proposes hypnotherapy as a method .intervention. Although there are many alternative treatments and therapies that are being used on HIV/AIDS people, yet out of all those treatments and therapies; hypnotherapy showed a significant effect on psychological attributes like self-confidence, anxiety, pain, stress etc. Hence hypnotherapy is used as an intervention to see its effect on psychosocial health of HIV+ people. Among the co-morbid problems of HIV+ people, dermatitis is one of the common ones. So, the disease condition with combination of HIV and dermatitis was taken to test the effectiveness of hypnotherapy.

1.1 HIV/AIDS, Global Picture

The latest statistics of the global HIV and AIDS is by UNAIDS, November 2009; it was found that there are 33.4 million people living with HIV/AIDS in 2008, out of which 31.3 million are adults, 15.7 million people are women, 2.1 million children. People newly affected with HIV in 2008 were 2.7 million. An estimated 2.6 million (2.3 million–2.8 million) people became newly infected with HIV in 2009, nearly 20% fewer than the 3.1 million (2.9 million–3.4 million) people infected in 1999 (UNAIDS, 2010). In Asia, an estimated 4.7 million (3.8 million–5.5 million) people were living with HIV in 2008. The number of new HIV infections decreased from 400, 000 in 2001 (310, 000 – 480,000) to 350, 000 (270, 000–410, 000) in 2008. In 2008, an estimated 330, 000 (260, 000 – 400, 000) people died of AIDS-related illnesses. While the annual number of deaths in South and South-East Asia in 2008 was approximately 12% lower than the mortality peak in 2004, the rate of HIV-related mortality in East Asia continues to increase. At the end of 2009, 33.3 million (31.4 million–35.3 million) people were estimated to be living with HIV, up slightly from 32.8 million (30.9 million–34.7

million) in 2008. In Asia, an estimated 4.9 million (4.5 million–5.5 million) people were living with HIV in 2009. The reason may be more people live longer due to more access to antiretroviral therapy (UNAIDS, 2010).

Indian Picture

As per Indian statistic shown in 2007(NACO, 2010), across India HIV prevalence found to be low among the general population, but disproportionally high in high risk group, such as Injection Drug Users (IDU) is 72%, female sex workers (51%), men who have sex with men (74%) and sexually transmitted disease clinic attendance (3.6%) and women attending antenatal clinic in India is 0.48%. It is estimated that India had approximately 1.2 lakh new HIV infections in 2009, as against 2.7 lakh in 2000.Of the 1.2 lakh estimated new infections in 2009, the six high prevalence states account for only 39% of the cases, while the states of Orissa, Bihar, West Bengal, Uttar Pradesh, Rajasthan, Madhya Pradesh and Gujarat account for 41% of new infections (NACO, 2010). In most of the cases HIV prevalence cannot be accurately determined from reported cases because many infections are undiagnosed and unreported. The best estimates are mainly based on the results of surveys of large group of people. To be precise HIV is prevailing in each psychosocial status i.e. poor, rich or middle class, male and female including rural population, this is difficult to estimate because there are several cases unreported and undiagnosed. The total number of people living with HIV/AIDS (PLWHA) in India is estimated at 24 lakh (19.3 – 30.4) in 2009. Children (<15 yrs) account for 3.5% of all infections, while 83% are in the age group 15-49 years. Of all HIV infections, 39% (9.3 lakh) are among women. The four high prevalence states of south India; (Andhra Pradesh – 5 lakh, Maharashtra – 4.2 lakh, Karnataka – 2.5 lakh, Tamil Nadu – 1.5 lakh) account for 55% of all HIV infections in the country. West Bengal, Gujarat, Bihar and Uttar Pradesh are estimated to have more than 1 lakh PLWHA each and together account for another 22% of HIV infections in India. The states of Punjab, Orissa, Rajasthan & Madhya Pradesh have 50,000 to one lakh HIV infections each and together account for another 12% of HIV infections (NACO, 2010). As per HIV prevalence in Gujarat is counted less than 5 % prevalence among highest risk group and less than 1% of the population data collected from Ahmedabad city.

The World Health Organisation (WHO) reports that India's HIV prevention is on the rise with 5.7 million people living with HIV, whereas in India, National AIDS prevention and control policy (NACO, 2007) says that the spread of HIV of 5.2 million is slowing down. Whatever may be the statistics, it is a fact that the HIV infection may lead to a disastrous effects. However; in the treatment of pandemics like HIV/AIDS, which makes it a matter of national concern, it is necessary to understand the emotional, economic, psychological and sometimes even political aspects which influences it. AIDS is not the end of the world; it is simply the latest challenge to the medical community. AIDS, the acronym for Acquired Immuno Deficiency Syndrome, is the last stage of the Human Immunodeficiency Virus (HIV) infection .The result is destruction of the patients' immune system, since the infected person has no ability to fight off any infection because of the virus is replicating in and destroying the cell that normally fights infection, due to which the individual becomes susceptible to all opportunistic diseases.

Gujarat is more vulnerable to HIV/AIDS

The spread of HIV has assumed epidemic proportion in Gujarat due to massive industrialization and urbanization (next only to Tamil Nadu). Other factors that make Gujarat vulnerable to HIV are migration (both intra and interstate) mostly single male type, presence of national highways connecting high prevalence southern states with northern and central India, longest coast-line with mega ports and largest ship breaking yard which attract migrant labour and truck drivers, large tribal population with low literacy and different sexual norms. Although Gujarat, along with other southern states, reported its first HIV infection in 1986, it has remained a medium prevalence state while Karnataka, Tamil Nadu, Andhra Pradesh & Maharashtra have become high prevalence states. The epidemic is concentrated in populations with high risk behavior characterized by unprotected sex, and injecting drug use with shared syringe. Several high risk groups (HRGs) have high HIV prevalence, and sexual networks are wide and interlinked. However, these groups are not isolated communities but often mixed up with other subpopulations. 57% of the total HIV infections are in rural areas. In the general population, women and young people are becoming increasingly vulnerable to the infection. However, the low rate of multiple partners and concurrent sexual relationships in the wider community seems so far to have, protected the wider population with 99% percent of the adult population being HIV negative (GSACS report, 2010).

Diagnosed HIV persons face a threat, not only of physical survival but psychological survival also. Isolation from family, existential isolation – a fear of being rejected or abandoned may lead to anxiety and depression. As soon as a person is diagnosed HIV+ from first sitting with the doctor till the end s/he faces several psychosocial problems, in turn, it affects the immune system. The epidemic of stigma, discrimination and denial is a global AIDS challenge as the disease itself. Epidemic stigma is poorly understood. The poor understanding is due to the complexity and diversity of stigma and discrimination. HIV/AIDS related stigma and discrimination also interact with pre-existing fears about contagion and disease. Early – AIDS metaphors – as death, as horror, as punishment, as guilt, as shame, as otherness – have exacerbated these fears, reinforcement and legitimising stigmatization and discrimination. HIV/AIDS is one of the most stigmatizing medical conditions in modern history (Kalichman, 2004). Many communities hold unfavourable attitudes, beliefs and policies towards people who have or who are associated with HIV/AIDS, including their loved ones, family members, close associates, and social groups (Cook and Seaton, 2003).

1.2 Rationale of the Study

HIV positive people undergo a lot of suffering due to stigma, discrimination and prejudice shown by the society and relatives. There are many awareness programmes run by the Indian government. AIDS awareness program involves a multi-pronged sequence of events and interventions including educational, social, and medical efforts to restrain the spread of HIV/AIDS. Antiretroviral therapy works to control the spreading of the

HIV but it causes several side effects which worsen the condition of HIV positive people. With visible symptoms like in the case of dermatological infections, person starts losing self-confidence, which creates anxiety and in turn leads to problems in adjustment, depression. This can increase sensation seeking behaviour which may result in risk taking behaviour where people get involved in multiple sex partners leading to spreading of (STDs)/ (RTIs) and HIV. These conditions leads to lowered coping skills, poor quality of life, well – being, subjective vitality, and health locus of control. There is less sensitivity to these issues and very few interventions found to be effective in dealing with such problems. Hypnotherapy has proved to be effective in dealing with many medical conditions. Thus, the present study designed to testify the effectiveness of hypnotherapy on psychosocial health which includes self-confidence, subjective – wellbeing, adjustment, anxiety, multidimensional health locus of control, sensation seeking, coping skills, depression, subjective vitality and quality of life of people living with HIV+ status with and without dermatitis. Also, to find out whether the hypnotherapeutic intervention can alleviate the dermatological symptoms of HIV+ people, HIV+ with dermatitis and people suffering from dermatitis alone.

1.3 Theoretical Framework:

There are different approaches which justifies how psychological well – being and mental health are important for physical health. The approaches are:

Earlier Health Models

In the middle of the 20th century medicine began to make the shift from being biological, which treated the mind and body separately, into the belief of treating the patient with mind-body dualism. Mind-body dualism is based on the belief that one's emotions and environment can be responsible for disease. For example, research has shown that people who have intense emotional problems were more likely to have ulcers, hypertension, diabetes, kidney problems, nervous system malfunctions, and circulatory system difficulties (Hafen, 1996).

In the later 20th century, mind-body dualism debate led to the proposition of bio-psycho-social model. The bio-psycho-social model focused on the belief that an individual's health can be affected not only by biological factors, but also by psychological factors and social factors. Today, scientific studies are showing that "negative" emotions such as worry, anxiety, depression, hostility, and anger can increase susceptibility to disease, while "positive" emotions such as optimism, humor and a fighting spirit can protect health and help to heal. One practitioner in the medical community stated that he believed than an estimated 90 percent of all physical problems have emotional roots. He continued by stating that his estimate was on the conservative side (Hafen, 1996).

The Recent Health Models

The Biopsychosocial model is still being incorporated into modern day medicine. Though, an addition has been done to this model, incorporating the impacts of spirituality and faith on health. What is faith or spirituality? This is a very individual and complex question to answer. French novelist George Sand penned the sentiment that faith "is an excitement and an enthusiasm; it is a condition of intellectual magnificence to which we must cling as to a treasure, and not squander in the small coin of empty words". Meanwhile, American philosopher Ralph Waldo Emerson wrote extensively of faith. "All he had seen and experienced caused him to have faith in that which he could not see, whoever reasons only according to what the five bodily senses reveal or believes that the only means of knowing is through seeing, hearing, tasting, smelling, and feeling is controlled by appearances". According to Albert Einstein, "Everyone who is seriously involved in the pursuit of science becomes convinced that a Spirit is manifest in the Laws of the Universe, vastly superior to that of man, and one in the face of which we, with our modest powers, must feel humble" (Hafen, et.al., 1996). In Einstein's definition he speaks of the overlap between science and faith.Medical and scientific research, which has been conducted over the past two decades, reports what exists in reality is not as important as what one believes to exist. This means that what a person believes can affect their physical health. Numerous studies have shown that faith can have an effect on physiological processes. In a study conducted by the Mind Science Foundation, people were able to decrease the destruction of red blood cells. Another good example of faith's power over physiological processes is the impact it has on blood pressure; studies have shown that devoutly faithful groups of people tend to have lower blood pressure than a comparison group of people (Hafen, 1996). Despite the numerous research findings that support the power of faith, many practitioners do not believe nor incorporate faith based practices into their treatments.

Practitioners who do not incorporate faith based or spiritual practices into their treatment plans, do not take into recognition the spiritual health of their patient. Dr. N. Lee Smith defines spiritual health as being the state of well-being – not just the absence of disease. Dr. Smith also states that spiritual health is a sense of empowerment and personal control that includes feeling heard and valued, feeling in control over one's responses (but not necessary in control over the environment). Spiritual health is also defined as having a sense of connectedness to one's deepest self, to other people and all that is regarded as good" (Hafen, 1996).

Positive Psychological framework, Schneiderman (1999) in a research found that positive emotions play an important role. A team of researchers studied the positive emotion, in which the study done by Lyubomirsky, Diener, and King, discussed about the benefits of happiness. The results by cross sectional and longitudinal studies reveal that happiness is associated with and precedes numerous successful outcomes, as well as behavior paralleling success. The positive affects – the hallmark of well – being is also shown to correlate with precede and cause of variety of desirable resources, behavior and characteristic e.g., sociability, self-confidence, helpfulness, creativity and coping. In sum, happiness has multiple benefits for individual and the community.

One more study by the member of research team, (Kahneman, Diener, and Schwarz, 1999) talks about Happiness and the Holidays. The research was designed to psychological factors associated with happy, satisfying Christmas. The study reports that, the materialistic aspects of modern Christmas celebration may undermine well – being which family and spiritual activity may help people to feel more satisfied.

The nature of well – being is one of the most enduring and elusive subjects of human inquiry. Using the tools of experimental science, the contributors confront the puzzles of human lives and dislikes. Why do we grow accustomed and desensitized to change in our lives, both good and bad? Does own happiness reflects the circumstances of our lives or is it determined by our temperament and personality? Why do human acquire tastes of sensations that are initially painful or unpleasant? By examining the roots of our everyday lives and dislikes. Among the wide ranging inquiries, well – being examines systematic differences of moods and behaviors between genders, explaining why women suffer higher rates of depression and anxiety than men, but one also more inclined to express positive emotion. From the surveys and questionnaires of social science to psychological and physiological experiment, show how the sensory pleasures of the body can tell us something about the higher pleasures of the mind and even how the effectiveness of our immune system can depend upon the health of our social relationships. (Kahneman, Diener, and Schwarz, 1999)

Ed Diener(2006), discussed about that the importance of happiness, subjective well – being, and positive emotion. Some experts believe that measures of subjective well – being require additional research and reinforcement before they should be used in policy decisions, while others believe that the use of these measures is long overdue. In a sense both are correct. National economic measures have stronger conceptual and are more methodologically sophisticated based as they are on over 50 years of developmental and extensive government support. Although the well - being indicators have yet to be developed in the same way. Thoughtful use of the existing measures in combination with the development of improved measures will be beneficial both private and public decision making. According to Ed Diener, the concepts related to subjective well – being (SWB), as well as its measurement, give us insights in defining and measuring empowerment. SWB is defined as people's evaluation of their own life. Subjective well– being is necessary for quality of life, but it not sufficient for it. SWB is necessary because it is difficult imaging life, no matter how positive in objective respects, that we would label as ideal if the individual experiencing that the life was dissatisfied and depressed. Therefore, SWB is necessary for us to consider a life an ideal one. SWB however, is not sufficient because we would consider a happy person's life incomplete if s/he was not free or was missing often basic qualities that we consider necessary for dignity. The growth of positive psychology is the proliferation of measures to access the concepts such as happiness, well – being and virtues. Several critiques of positive psychology, there is too much emphasis within the positive psychology on the individual and too little focus on positive societies, institutions and situations. Positive psychology has important strength and we can take profit from considering the various critiques because they help us to improve the field (Diener, 2006).

Psychoneuroimmunology (PNI) is the study of how psychological factors such as stress and depression can affect the immune system through the nervous system. This research examines PNI in relation to HIV/AIDS and dermatitis. It discusses the possible mechanisms through which these diseases are affected by stress.

Psychoneuroimmunology (PNI) is the scientific field of study that investigates the interactions among the nervous system, the endocrine system, and the immune system and how these systems influence one another (Kaplin and Bartner, 2005). The emphasis of PNI is on developing an understanding of how the immune system is influenced by both sociobehavioral and physiological factors (McCain, Gray, Walter, and Robbins, 2005). Work in this area has evolved to focus on three types of interactions between the central nervous system (CNS) and the immune system: CNS modulation of immunity, immune modulation of CNS, and bidirectional modulation of CNS and immunity (Kaplin and Bartner, 2005). PNI can be used to understand how pathogens may weaken the immune system to cause psychological ailments such as stress and depression and how psychological ailments can weaken the immune system to potentiate or attenuate disease. It is easier to understand these interactions when they are thought of through a paradigm.

The PNI paradigm consists of three major components: the psychological component, neurological component, and immunological component (McCain et al., 2005). Under these major components are cofactors, which are defined as factors that have the potential to predispose an individual to certain stress, coping, and health patterns (McCain et al., 2005). Cofactors include gender, age, nutrition, severity of one's illness, adherence to treatment regimens, and side effects of treatments.

Studies have shown that as many as 95 percent of all backaches are triggered by the psyche, not physical abnormalities or by heavy lifting. Research has also shown that factors such as stress and social support also affect a person's health. One study found that people with many social contacts - a spouse, a close knit family, a network of friends, church, or other group affiliations – tended to live longer and healthier lives (Hafen, 1996). Stress, anything that upsets one's sense of balance and makes it necessary to regain that balance, can also affect one's condition of health. For example, a Gallup poll, conducted for the National Occupational Information Coordinating Committee, reported that about half of all Americans say that stress affects their health, personal relationship, or ability to do their job. The mind/body connection has also led to the medical fields of psychosomatic disease and psychoneuroimmunology. Psychoneuroimmunology is defined as the scientific investigation of how the brain affects the body's immune cells and how the immune system can be affected by behavior. It is a term coined by Dr. Robert Ader in 1964. In short, "psychoneuroimmunology focuses on the links between the mind, the brain, and the immune system, incorporating the intricate interaction of consciousness," (Hafen, 1996).

Psychoneuroimmunology and HIV/AIDS HIV is a disease characterized by depletion of the host's immune system, specifically lymphocytes, CD4+, and T-helper cells, thus making the individual vulnerable to a variety of infections. When an infection develops, the patient is said to have AIDS (Stern, 1994). The course of HIV infection appears to be influenced by a complex interaction between biological and psychosocial factors (Persson, Ostergren, Hanson, Lindgren and Naucler, 2002). Therefore, PNI studies play a large part in understanding the proliferation of HIV.

Stress and HIV/AIDS Stress can have many effects on the anatomy and physiology of the brain, and as one could imagine, having HIV could cause stress. The anticipation of HIV antibody test results; the emergence of the first symptom of the disease; changes in occupational plans, lifestyle behaviours and relationships; and the burdens, costs, and responsibilities of complex medication regimens are all highly stressful (Antoni, 2003). Stress could dysregulated endocrine and immunologic processes underlying HIV disease (Antoni and Schneiderman, 1998), reactivating other latent viral infections and thereby activating immune cells infected with HIV. Also, stress could reduce NK cells and T-lymphocyte cytotoxicity. Evans et al. (1995) reported significant relationships between severe stress levels and reduced numbers of CD8+ and/or CD57+ cytotoxic T lymphocytes as well as NK cells. The increase in cortisol could also exacerbate the disease because of its effect on cytokines. Stress lessens the amount of interferon-γ, which disinhibits the virus. Along with this, increased levels of interleukin-10 due to stress inhibit the anti-HIV response of many immune system cells, thus permitting the proliferation of HIV.

As discussed earlier, stressors affect the HPA and SAM axes, which stimulate the SNS. Heightened SNS activity may facilitate HIV replication as well as diminish the effectiveness of HIV antiretroviral therapy (Cole, Kemeny, Naliboff, Fahey and Zach, 2001). Specifically, HIV+ men with signs of heightened autonomic nervous system activity show less HIV plasma viral load suppression and poorer CD4+ T cell recovery on highly active antiretroviral therapy. In sum, stress can affect the immune system, and this can have detrimental effects for someone who has HIV because it allows the disease to replicate and it inhibits the effects of some treatments. Depression works through a similar mechanism and it can also have an effect on HIV.

Psychoneuroimmunology and Dermatology Mental and psychic issues are also important in the genesis or development of many diseases. The psychological or psychiatric genesis of a skin disease, however, still remains one of the most debated and controversial arguments present in contemporary medicine and academia. This controversy is in part due to the ease with which a poorly understand and hard to treat disease can be labelled as having "psychosomatic pathogenesis". Labelling occurs often in dermatology because it is a field in which "elementary psychosomatic signs" are common (i.e., pallor, sweat, horripilation, itch, and redness). Psychological influence should be considered in dermatologic affections and many common dermatologic diseases have some form of psychomediated pathogenesis that partly accounts for the development of lesions. Clinical observations show a well-defined link between acute or chronic emotional stressors, psychiatric diseases, conflict, hostility, personality, mood, and dermatoses (whether increased, developing, or in remission) and also report positive effects of psychopharmacology and psychotherapy on the same diseases. “Mental” events, such as hypnosis and psychological stress, can influence delayed-type hypersensitivity responses, ultraviolet B ray–induced erythema, and the genesis of wheals after histamine prick test. Hyperhydrosis, telogen effluvium, idiopathic itch, lichen simplex, rosacea, alopecia areata, vitiligo, seborrhoic dermatitis, psoriasis, acnes, atopic dermatitis, viral warts, herpes simplex, and urticaria all can be associated with some psychomediated mechanism (Urpe, Buggiani and Lotti, 2005).

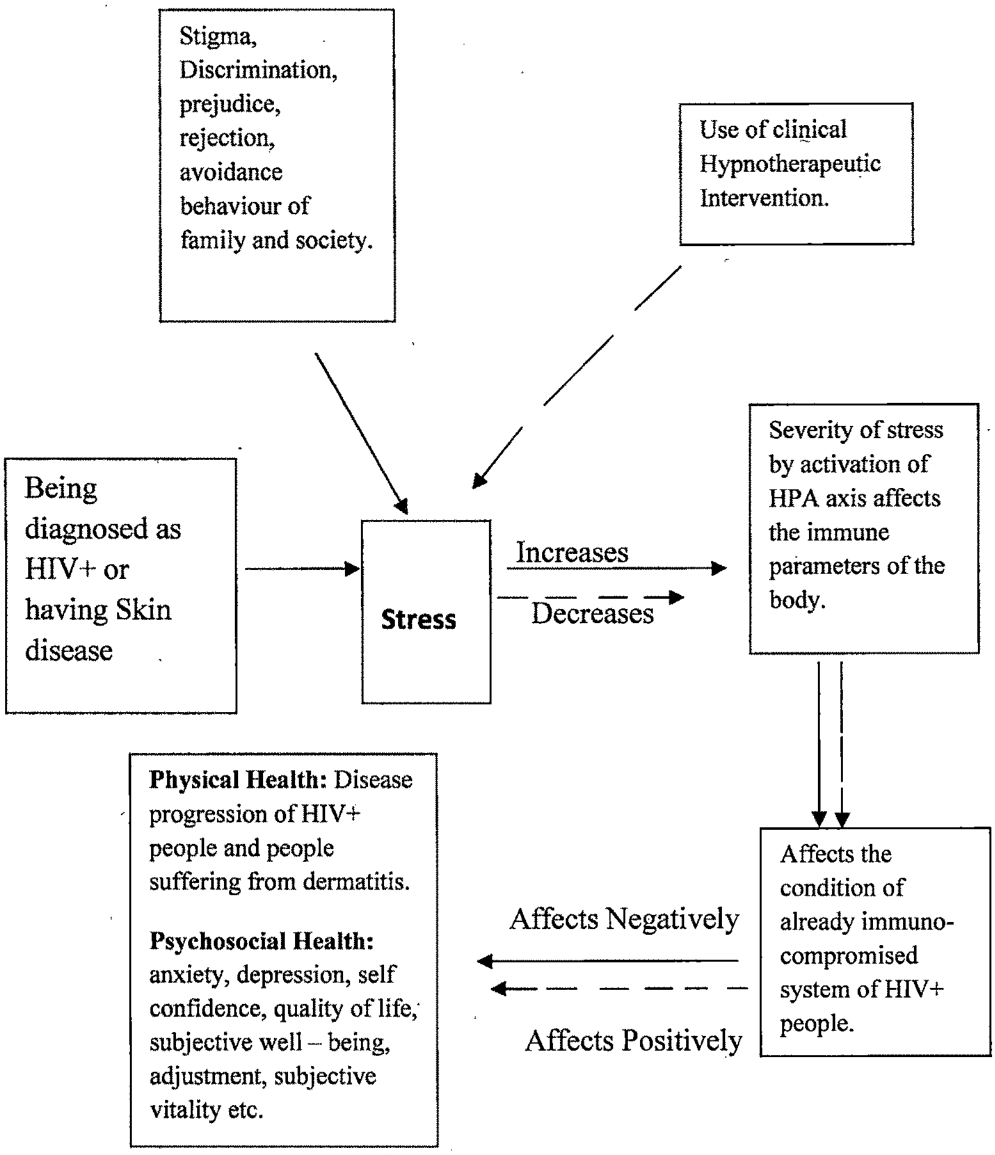
The psycho-immune-endocrine-cutaneous system functions as a primary route of communication between mind and body. The skin can be seen as the juncture of the simultaneous and connected activity of brain, immune system, and the skin itself. Neuropeptides, interleukines, and immune-system messengers are the means through which communication among the three entities takes place. α–Melanocyte-stimulating hormone (α-MSH) is one of the most investigated mediators in this system. α-MSH is a neuropeptide whose immune-modulating activity seems to inhibit inflammation generated in the skin. It is a 13-amino-acid–polipeptide derived from pro-opiomelanocortin and primarily synthesized by the hypophisis. α-MSH can also be released by the skin when a series of structures not belonging to the nervous system synthesize and release pro-opiomelanocortin, its derivatives, and a series of other substances after the “diffuse-brain” demonstration (substance P, calcitonin gene-related peptide, vasoactive intestinal peptide, neuropeptide Y, etc), which are capable of influencing human sensations, feelings, and behaviour. (Urpe, Buggiani and Lotti, 2005).

1.4 Conceptual Framework:

Based on the above theories, the proposed research aims to study the effect of Hypnotherapy on the self – confidence, anxiety, depression, adjustment, subjective well-being, quality of life, health locus of control, coping strategies, subjective vitality, sensation seeking behaviour and disease progression in terms of symptom management of dermatitis patients in a controlled trial clinical research. There are two groups, control and experimental. Intervention was given to experimental group in order to see the effect of clinical intervention on the aforementioned outcome parameters.

Stigma, stress in HIV+ adds to the disease progression. It has been discussed earlier that there is Mind-Body connection between the stress and the disease progression. By working on thinking process, by creating the positive mood sets, by controlling stress and its impacts the disease progression can be arrested. Specifically when we are talking about dermatological disorder it has been found that in most cases there is absence of pathophysiological conditions on the other hand it was found to be of psychosomatic origin. And thus, by controlling and changing the thought processes we can manage the symptoms of dermatological disorders in HIV+ people and also the psychological aspects of HIV+ people.

Figure a: Conceptual framework of the study.



1.5 Psychosocial intervention models for people living with HIV/AIDS

Now, there is now considerable evidence documenting links between psychological stress and dysregulation of the immune response (Herbert and Cohen, 1993). To the extent that this dysregulation contributes to excess mobility and mortality, it is conceivable that psychological intervention could bring about positive health outcomes by altering immune system processes. The most important impetus for the growth of intervention research during recent years, however, it has been excitement generated by several extremely provocative studies. For instance, it was found that people could deliberately modify their immune response when directed to do so under 'Hypnosis' (Black, 1963).

The immune system in the body is the chief defense against diseases. Its primary function is to eradicate foreign substances are called pathogens which include bacteria, viruses, parasites, fungi and other bio – organic material. The immune system clears pathogens from the body by generating responses to protein molecule that resides on the surface. The molecules are known as antigens. The immune system also eliminates bodily cells that has been transformed from their normal states through infection or malignancy and facilitates the repair of their tissues that have been damaged through injury. The cells of the immune system are called white blood cells. They are found predominantly in the bone marrow, thymus, spleen, lymph nodes and the tissues of the skin, lungs, gastro – intestinal tract. Component of the immune system are found in circulating blood because it, along with the lymphatic system, transport their between immune compartment and sites of infections and injury. Immune system status can be assessed with either enumerative or functional measures. Enumerative methods involve counting different immune system components. These components include white blood cells population (granulocytes, monocytes, lymphocytes, Natural Killer (NK) cells, B – lymphocytes, T – lymphocytes, helper T – lymphocytes and suppressor/cytotoxic T -

lymphocytes), Antibody population in the blood (immunoglobulin A.G and M), in saliva (Secretary Immunoglobulin A). It also includes antibodies to specific pathogens [Epstein – Barr (EBV)] and herpes simplex virus (HSV). Functional measures, in contrast, assess how well a specific immune system process is performed for the intervention literature functional assays are performed to assess how effectively natural killer cell destroy laboratory grown tumor cells, how much lymphocytes divide following stimulation with a mitogen (A substance that induces mitosis or cell division) and how neutrophils can adhere to nylon fibers designed to stimulate blood vessels. Both enumerative and functional measures provide rough estimates of specific process rather than global indication of the immune system's capacity to resist diseases.

Psychological interventions are designed to improve psychological and/or physical well-being through modification of emotions, cognition or behavior (Cawley, 1983). There are five broad classes of intervention, stress management, relaxation, disclosure, hypnosis and conditioning. Also there is theoretical model describing the major behavioral and biological pathway through which intervention might influence the immune system. One should note that these models meant as organizing tools to guide work in this area.

Stress Management Intervention: Stress – management intervention attempts to alleviate the immune system dysregulation that accompanies psychological stress. Stress management trials focus exclusively on patients undergoing treatment for medical illness, such as cancer, HIV infection and rheumatoid arthritis. This intervention is guided by assumption that the illness represents a profound form of psychological stress. Stress – management trials typically consists of four major components, illness education, cognitive restructuring, coping skills training and the provision of psychological support. The model posits that stress– management alleviates immune dysregulation by modifying psychobiological process set into motion by stressful experience. This model begins with the notion that people continuously appraise ongoing stressful circumstance a long dimension of threat and manageability (Lazarus and Folkman, 1984). So the extent that circumstances is evaluated as posing a significant threat and exceeding coping resources, they elicit negative emotional responses. These emotional responses give rise to coping efforts which in some cases have direct effects on immunity. For instance, distressed individual might cope by increasing tobacco or alcohol use, decreasing physical activity or altering sleep patterns. This behavior could conceivably modify immune responses (Kiecolt Glaser and Glaser, 1988; Cohen and Williamson 1991; Miller, Cohen and Herbert, 1999).

Negative emotional status also is hypothesized to modulate the immune system by activating the sympathetic division of the autonomic nervous system. Activation of hormonal system constitutes another pathway through which negative emotion could induce immune dysregulation. Distress activates the hypothalamic – pituitary – adrenal axis, the sympathetic adrenal medullary axis, and the hypothalamic pituitary – ovarian axis. The hormonal products of these systems can bind to specific receptors on white blood cells and induce changes in their functions. With repeated exposures to these hormones, the immune response can become dysregulated with altered patterns of cell trafficking proliferation and cytokine secretion (Blalock 1994; Rabin 1999). A stress management process could interrupt this process in several ways. First, it would modify the way that stressful circumstances are appraised. So the extent that it helps people to view their circumstance as less threatening, for example, cognitive restructuring could diminish the negative emotional response that give rise to immune dysregulation. An intervention could also target negative emotion directly through activities like relaxation and emotional regulation training.

Kiecolt – Glaser and Glaser (1992) proposed that,stress management intervention will be most successful at modulating immune responses when it meets three conditions. The first is that participant have encountered an immune dysregulating stressful experience without such an impairment, the intervention is likely to fail because complex homeostatic mechanism exists to prevent the immune system from becoming overactive and initiating an attack on self (Kiecolt – Glaser and Glaser 1992). The second condition is that the interventions successfully reduced the stress. This process would involve eliciting more benign appraisal of the precipitating experience, reducing negative emotion and modifying health – compromising behavior. The third and final condition is that the intervention attempts to modulate immune processes that are by stressful experience of the many immune processes measured. Stress related immune dysregulation is characterized by declines in circulating counts of various lymphocytes subpopulation including T – Cells, natural killer cells (NK) and B – cells. Stress also elicits reduction in total secretory immunoglobin Ig A and increase in antibody titers to the herpes virus EBV and HSV.

Relaxation Intervention: A relaxation intervention could alleviate the dysregulation by reducing negative emotions and consequently dampening activity in hormonal system and/or relevant descending sympathetic fibers. Studies demonstrated that states of relaxation are accompanied by declines in negative mood states, sympathetic nervous system activity and circulating hormones level (Hoffman et al, 1982; Leher and Woolfolk, 1993; Mc Grady et al., 1987). The model assumes that relaxation intervention will be most successful when they meet the same condition as stress management, enrolling participants who have encountered an immune – altering stressful experience, successfully altering the hypothesized psycho – biological mediators, and measuring immune outcomes with demonstrated sensitivity to stress.

Disclosure Intervention: Disclosure intervention influences the immune system. A model of this process begins with the assumption; that people cope with some stressful experiences through psychological inhibition i.e., the failure to express the thoughts, feelings and behavior that surround the experience. Inhibition occurs when people believe that they cannot easily discuss their experience with other, either because they do not trust them or fear that a discussion might have unpleasant consequences (Lepore, Silver, Wortman, and Wayment, 1996).This inhibition exacts a toll or the immune system by activating hormonal system and/or sympathetic fibers that innervate lymphoid organs (Pennebaker and Beale, 1986). The disclosure process is hypothesized to alleviate the resulting the immune dysregulation by forcing the individual to impose structure on the experience through words, a process that facilitates a less threatening appraisal, a greater sense of personal control, and the feeling that one can now successfully cope with the experiences personal or social ramification. More benign appraisal can reduce negative emotion and facilitates greater discussion of the stressful experience, both of which should dampen hormonal and sympathetic activity and thereby restore immune regulation.

Exercise Intervention: Exercise is one key management strategy used by health care professionals to address impairments (problems with body function or structure as a significant deviation or loss such as pain or weakness), activity limitations (difficulties – an individual may have in executing activities such as inability to walk) and participation restrictions (problems an individual may experience in life situations, such as inability to work) in the population (WHO, 2001).

Exercise may also be used to address unwanted changes in weight and body composition in people living with HIV infection. AIDS wasting is a condition associated with HIV infection and is defined as an "involuntary loss of more than 10% of baseline body weight in combination with diarrhea, weakness or fever." AIDS wasting may lead to increased energy expenditure (Grunfeld, 1992), increased energy intake (Macallan, 1995), decreased functional capacity (Grinspoon, 1999), and even death (Palenicek, 1995). Highly active antiretroviral therapy (HAART) has been associated with a reduction in the severity of weight loss and malnutrition and improvements in immune status for people living with HIV infection (Schwenk, 1998). However, antiretroviral therapy may also be associated with unwanted changes in body composition known as lipodystrophy. Lipodystrophy is a syndrome associated with physical and metabolic changes in the body (Boufassa, 2001). Lipodystrophy is characterized by a reduction in subcutaneous fat (fat stores under the skin) in the face, arms, legs and buttocks, and an increase in visceral fat (fat stores that surround organs) in the abdomen, back of neck and breasts. Such changes in body composition can have an impact on body image for persons living with HIV/AIDS. Furthermore, the potential long term effects of the accumulation of visceral fat associated with lipodystrophy for people living with HIV infection are unknown. Certain pharmacological interventions, such as growth hormones, have been used among people living with HIV infection to increase lean body mass (parts of the body limited of stored fat such as: muscle, bone, connective tissue, organs and water). However, these medications are often expensive and may be fraught with unwanted adverse events (Roubenoff, 1999).

In addition to other potential benefits, exercise is an alternative intervention for addressing changes in body composition. Aerobic exercise is associated with improvements in strength, cardiovascular function, and psychological status in general populations (Bouchard, 1993). Results of a systematic review (Nixon, 2002) suggested that performing constant or interval aerobic exercise, or a combination of aerobic and progressive resistive exercise interventions at least 3 times per week for at least 4 weeks appeared to be safe and may lead to clinically important improvements in cardiopulmonary fitness for adults living with HIV/AIDS (O'Brien, Nixon, Glazier and Tynan, 2004).

Hypnotherapeutic Intervention: Hypnosis is an altered state of consciousness marked by deeply focused attention and extreme sensitivity to suggestions. In a typical hypnosis with immune suggestion (HWIS) trail, the participant has an antigen pricked into his arm or her skin. Next, a hypnotic state is induced, followed by explicit suggestion that the immune system will not respond to the antigen. The wording of the suggestion varies across the studies, with some suggesting that participants "Imagine themselves taking a guided tour inside their own bodies" during which they "travel in the blood stream to their right arm" and encounter white blood cells. The cells "knowing that the injected material only contained harmless protein from dead bacteria" would "check the site of the injection but not react much further" (Zachariae, Bjerring, and Arendt – Nielsen, 1989).

Other suggests that participants experience sensations in coolness, numbness and dissociation in the arm (Laidlaw, Richardson, Booth and Large, 1994). In some studies suggestion direct participants to enhance, rather than suppress immune responses to the antigen. It is possible that hypnosis intervention modulate the immune system by eliciting a state of relaxation. This process might reduce negative emotion, dampen activity in hormonal system and/or the sympathetic fibers that innervate lymphoid tissues and alter immunity. Studies have shown that people can follow hypnotic suggestion to alter automatically mediated process such as heart rate, blood pressure, skin temperature and even regional blood flow (Lehrer and Woodfolk, 1993). Regardless of the specific mechanisms through which Hypnosis With Immune Suggestions (HWIS) interventions operate, their success is likely to depend heavily on whether participants are susceptible to hypnotic induction. People vary dramatically in their capacity to achieve hypnotic states, and studies have shown that highly hypnotizable participants show greater immune change with hypnotic interventions than their low hypnotizable peers (Gregerson, Roberts, and Amiri, 1996; Ruzyla – Smith, Barabasz, Barabaz, and Warner,1995; Christensen, and Bjerring, 1997).

Spirituality Intervention: The people living with HIV/AIDS are in the need of physical, psychological and social support, which could be improved through the spiritual intervention as it has a strong integration with the religion and the community. Almost all the people of the world with different religious backgrounds have belief that the spirituality makes the life beautiful even after the death. The spirituality promotes the meaningful combination of the body, mind and the soul for an eternal happiness that is an age old believe and experience of the human being. There are several methods for promotion of spiritual health like worship, observance of rules, and abstinence from evil acts, yoga and meditation. The involvement of the spiritual institution, religious and spiritual leaders can play a major role for care & support and harm reduction procedures as they have a strong community support. They can also able to remove stigma and discrimination around the people PLWHA which have been proved to be a success in Thailand, Uganda and other countries. The AIDS care with spiritual support extended in "Shantidan" - and AIDS hospice running by the Sisters of the missionaries of Charity is an Indian example of such intervention. The spiritual intervention can promote the quality of life of the PLWHA by promoting care & support and harm reduction procedures as it has a strong community support (Bhuyan, 2004). Ironson et. al (2002) studied the relationship between spirituality/religiousness index with long survival, health behaviour, less distress and low cortisol in people living with HIV/AIDS. Four factors were found by the authors that: sense of peace, faith in god, religious behaviour and compassionate view of others, all were significantly related to both frequency of prayers (positively) and judgemental attitude (negatively). In addition to this, the spirituality – religiousness index yielded strong and significant correlation with less distress, more hope, social support, health behaviours, helping others and lower cortisol levels. According to Koenig and Cohen (2002), use of spirituality, a positive sense of meaning in life and fewer HIV – related symptoms were the predictors that accounted for unique psycho – social resources that may positively influence adjustment for those living with HIV infection (Biswas, 2007).

Cognitive Behaviour Therapy: A model, how the conditioning intervention might occur can be generated on the basis of principles of classical conditioning. An initially neutral stimulus (called the conditioning stimulus or CS) is paired with an immune modulating stimulus (called the unconditioned stimulus or UCS). With repeated presentation, the CS alone comes to elicit the same immunologic response as the UCS. The principle mediators of this phenomenon would probably be hormonal system and/or the sympathetic fibers that innervate lymphoid organs. In other words, the initial neutral stimuli would come to elicit immune responses of their own by first bringing about changes in hormone secretion pattern and/or descending sympathetic fiber activity (Buske – Kirschbaum et al., 1992). The success of human conditioning intervention depends on having a sufficiently salient CS paired with UCS that activates the relevant descending sympathetic fibers and/or hormonal system, an adequate number of pairings of the CS and UCS, and the appropriate sequencing and timing of the stimulus presentation. A study done by Hendry (2003), shows that neither treatment for depression nor psychological intervention improved event – free survival following myocardial infarction. Post myocardial infarction treatment for depression, for low perceived social support, or for both offered patients, no significant difference in event – free survival compared with those who received no depression or psychosocial intervention and treatment. Depressed patients received cognitive – behavior therapy (CBT) while those unidentified with low perceived social support were treated with CBT technique supplemented with counseling strategies tailored to address the patient's social and behavioral deficits. Elements of both interventions were used for depressed patient with low perceived social support. It was concluded that psychosocial intervention did not improve the rate of recurrent infarction or mortality. Intervention did, however, impart significant improvement in depression and low perceived of social support indices during the first six months of therapy.

1.6 Treatment and therapies for HIV and Dermatitis

It is known that there is no treatment available for HIV infection or AIDS people. Although, as yet, there is no cure; over the last decade researchers have identified a number of drugs that slow progression of the virus as well as therapies to treat the many opportunistic infections that attack people with HIV disease. The key of effective treatment is early detection and intervention. Some early treatment aim to strengthen the immune system, help patients reduce stress, and maintain good nutritional practices and appropriate exercise regimens. There are drugs available which stop people becoming ill for many years. The treatment consists of drugs that have to be taken every day for the rest of a person's life. The treatment is known as Antiretroviral Therapy (ART). The aim of antiretroviral treatment is to keep the amount of HIV in body in the body at a low level. This stops any weakening of the immune system and allows it to recover from any damage that HIV might have caused already. These drugs are referred to as antiretroviral, anti HIV or anti AIDS drugs or HIV antiviral drugs ARV's. The drugs are mostly usual combinations. That is why they are called combined therapy. Taking a combination of three or more anti HIV drugs is sometimes referred to as Highly Active Antiretroviral therapy (HAART). In some case only one drug is given to a person, HIV would quickly become resistant to it and the drug would stop working. Taking two or more antiretroviral at the same time vastly reduced the rate at which resistance would develop, making treatment effective in the long term. At present twenty approved antiretroviral drugs are available but they are kept in five antiretroviral groups. Each of these groups attacks HIV in different way and has got defined side effects.

Side effects of Antiretroviral Therapy (ART) Nausea(feeling sick) is the most common side effects of ART, feeling tired: tiredness can be caused by drug, other opportunistic infection (dermatitis), not eating well, feeling depressed, being anaemic, low levels of hormones including testosterones and thyroxin. Rashes: most rashes caused by ART drug can cause itchy, mouth ulcers etc. Lipodystrophy Syndrome: shape of the body changes as fat is lost in one part of the area and gained in other part. Test may show higher level of fat in the body above the normal level. Also the way body controls sugar with insulin may not work, as it should. Doctor's call is insulin resistance and increases the risk of getting diabetes. Doctor calls this combination of effects on your body fat and on sugar and fats is blood lipodystrophy syndrome. Tingling and numbness (pain in feet/hand). Antiretroviral drugs can damage the nerves in feet and legs which can be extreme painful (called peripheral neuropathy) (AIDS Infonet, 2008)

The more serious side effects of ART are, abdominal pain, diarrhoea, nausea, vomiting, breathing difficulty, cough, headache, insomnia, dizziness, anxiety, depression, abnormal dream, difficult concentrating, inflammation pancreas, memory problem, convulsion, blurred vision, and tiredness, an altered sense of taste, dryness of mouth, allergic reaction, and hair loss. These side effects are shown with ART, different group of ART has different side effects, but most common are given above.

For dermatitis there are many drugs and ointments but again there are a number of side effects associated with drug therapy for dermatitis. Also many times drug therapy is slow in case of dermatitis.

1.7 Hypnotherapy as an adjunct therapy

Hypnosis: Hypnosis and hypnotic suggestion have been a part of healing from ancient times. The induction of trance states and the use of therapeutic suggestion were a central feature of the early Greek healing temples and variations of these techniques were practiced throughout the ancient world. Modern hypnosis began in the 18th century with Franz Anton Mesmer, who used what he called "magnetic healing" to treat a variety of psychological and psycho physiological disorders, such as hysterical blindness, paralysis, headaches, and joint pains. Since then, the fortunes of hypnosis have ebbed and flowed. Freud, at first, found it extremely effective in treating hysteria and then, troubled by the sudden emergence of powerful emotions in his patients and his own difficulty with its use, abandoned it. In the past 50 years, however, hypnosis has experienced resurgence, first with physicians and dentists and more recently with psychologists and other mental health professionals. Today, it is widely used for de-addictions, such as smoking and drug abuse, for pain controls, and for phobias, such as the fear of flying.

One of the most dramatic uses of hypnosis is the treatment of congenital ichthyosis (fish skin disease), a genetic skin disorder that covers the surface of the skin with grotesque hard, wart-like, layered crust. Hypnosis is, however, most frequently used in more common ailments, either independently or in concert with other treatment, including the management of pain in a variety of settings, reduction of bleeding in haemophiliacs, stabilization of blood sugar in diabetics, reduction in severity of attacks of hay fever and asthma, increased breast size, the cure of warts, the production of skin blister and bruises, and control of reaction to allergies such as poison ivy and certain foods. Hypnosis is a state of highly focused attention (trance) in which external stimuli are disattended and suggestion becomes far more effective than usual. The fundamental usefulness of hypnosis in medicine and healing has been controversial for more than 200 years, i.e., since Anton Mesmer produced the body of work now recognized as the beginning of clinical hypnosis. Does medical hypnosis work? If so how? Does it produce real bodily healing at the physiologic level, or is its therapeutic effect merely the result of imagined comfort--and thus to be found in the mind only? These questions are reasonable and can best be addressed by clinical observation aided by modern technology.

The most clinically significant recent development in medical hypnosis is our understanding that the power of hypnosis actually resides in the patient and not in the doctor. This simple statement has profound implications because it implies existence of useful potential within each patient. The goal of modern medical hypnosis is to help patients use this unconscious potential--a revolutionary shift from the direction-focused, authoritarian therapeutic techniques of the past. By contrast, modern medicine involves a highly rational belief system that minimizes the importance of autonomous therapeutic processes. This belief system has created an expectation that everything can be accomplished on a conscious and voluntary level, even though such voluntary efforts can sometimes obstruct natural healing processes. Notwithstanding this possible obstruction, a cumulative effect can be attained by simultaneously using the opposing concept that underlies modern medicine with medical hypnosis. (Brian, 2002)

Acceptance of Hypnosis in medicine: Acceptance of hypnosis in medicine has evolved slowly. In 1847, the Roman Catholic Church indicated acceptance of hypnosis, noting that hypnosis was not morally forbidden, and in 1956, Pope Pius XII noted its use for childbirth and indicated the need for proper precautions as for other forms of medical treatment. Other religions (with exceptions) have shown acceptance, with ministers of different faiths trained in and using hypnosis in their practices (Durbin, 1998). In 1958, the American Medical Association (AMA) published and approved a report from a 2-year study by the Council on Mental Health. The report indicated that there can be "definite and proper uses of hypnosis in medical and dental practice" and recommended the establishment of "necessary training facilities" in the United States. The British Medical Association had issued its report on hypnosis in the British Medical Journal in 1955, with which the AMA's Council on Mental Health indicated "essential agreement" (Spiegel, Greenleaf and Spiegel, 2000). The American Psychiatric Association, in a position statement approved by the Council of the Association in 1961, indicated that "hypnosis has definite application in the various fields of medicine" and that physicians would be seeking psychiatrists for training in hypnosis. A National Institutes of Health panel issued a statement published by the AMA in 1996 indicating that there was "strong evidence for the use of hypnosis in alleviating pain associated with cancer."

Hypnotherapy: Hypnotherapy is a treatment modality with specific therapeutic aims and specific techniques utilised whilst the subject is in a state of hypnosis. When access to the subconscious is gained through use of hypnosis, a more profound level of relaxation with a concomitant reduction in stress levels is achieved which aids in retrieval, resolution and re – education of old outdated memories, traumas, negative and distressing emotions, etc.

Levels of Hypnosis and its Importance: There are three 'levels' of hypnotic trance: light, medium and deep (there is also a fourth known as plenary trance but it is exceptionally rare and impossible to attain through self-hypnosis). At the lighter levels of hypnosis, their operators usually experience feelings of relaxation and calmness. It is also possible to perceive some physical changes. Some people, for example, may experience tingling sensations in the fingers, blinking eyelids, a sensation of weight in some parts of the body and others. The intensity of these early experiences is usually low, but a few weeks of practice can teach you how to develop these skills even further. Another element that often relates to initial hypnosis is the distortion of time. Most people who undergo hypnosis believe that they were hypnotized for a shorter period of time than it was in reality. However, after they have experienced hypnosis a few times, a person will start to get a better perception of the passing time.

As the hypnosis subject progresses to medium levels of hypnosis, the altered state becomes more enhanced. Physical perceptions may gain more importance, and the subject may experience heightened tingling feelings or heaviness in the lower body. Some subjects experience floating sensations and all these feelings are perceived as being very real by the one being hypnotized. This stage allows the hypnotist to suggest stronger visual images in the subject's mind. At this level, creating illusions becomes more accessible. New thresholds that were unavailable previously now become apparent. Conscious awareness may fade for the subject when the level of hypnosis deepens.

A subject, who reaches the somnambulistic levels of hypnosis, can achieve even better mental and physical responses. Several physiologic responses can be observed, such as the REM (rapid eye movement) usually associated with dreams during sleep. At this stage the patients may experience complete conscious amnesia, as if they are virtually absent from their surrounding reality. This is also the level where strong hallucinations can occur, not only during the actual hypnosis process, but even after it ends. Hypnosis can be viewed as the sleep of the nervous system. There is a decrease in the rate of respiration, but not as strong as the one experienced during sleep. Circulation also slows down, together with the brain waves (Kroger, 1963; Crasilneck and Hall, 1985; Waxman, 1989).

Hypnosis Techniques: Hypnotherapist helps patients reach a state of hypnosis in a lot of various ways. They are trained in different hypnosis techniques, in order to help each patient in the way that is best for them. Many of these hypnosis techniques have shown to be very effective in helping people solve problems and conquer bad habits. The hypnotherapist, with the help of one of the hypnosis techniques, puts the patient into hypnotic trance and induces suggestions of behavior or reinforcing beliefs that a person may have. Below are listed some various techniques used most often by hypnotherapists. There are others as well, but the ones here are some of the more accepted and successful ones.

Eye Fixation

This is the most useful method of inducing hypnosis, and one of the first that should be mastered thoroughly before attempting any of the more advanced techniques. It is a method that depends upon concentration of attention since the subject listens intently, throughout the induction, to what the hypnotist is saying. The subject either lies on a couch or sits in a comfortable chair, and is told to select a spot on the ceiling, slightly to the rear, so that he is looking upwards and backwards at it. He fixes his eyes upon this spot, and must not allow them to wander from it for a single moment. If they do, his attention must immediately be called to the fact.

Progressive Relaxation

This method depends upon the induction of passivity of mind, without employing any accompanying distraction technique. The subject should be lying on a couch, or resting comfortably in an armchair. Note that no fixation point is especially used. In this case, fixation of attention is directed towards a limited group of ideas. He should be asked if he ever relaxes, for example by lying on the beach in the sunshine or perhaps in the shade of a tree in the garden, or simply by sitting in his armchair at home.

Guided Imagery Hypnosis

Another hypnosis technique widely used by hypnotherapist is guided imagery. This technique is effective in relaxing a patient and making sure that they remain calm, while putting thoughts in their imagination. During this technique, the patient is told to imagine a new experience, which is carefully and colourfully described to relax the patient's mind. Guided imagery is a practice of purposefully directing your imagination to help your mental being, emotional being and your physical body heal or perform well.

Parts Hypnosis

In parts therapy hypnosis, the hypnotherapist helps the patient to examine their problem by breaking it into detailed parts. When doing this, the hypnotherapist can recognize the specific parts, in which there are problems, and then carefully suggest just what should be done by the patient in order to correct the problems.

Repetition Hypnosis

In this hypnosis technique the hypnotherapist makes suggestions regarding the change in behaviour to the patient over and over again. The repetitiveness helps the patient to be more receptive to the change.

Confusion Hypnosis

In confusion hypnosis, the hypnotherapist gives peculiar indirect forms of suggestion in order to confuse the patient. This makes them more likely to respond to the direct forms of suggestions used in the other hypnosis techniques.

Sensory Imagery Conditioning

This is one of the standard behaviour modification techniques used under hypnosis. When a person wants to alter and make desirable changes in ones' usual, set pattern of thinking, feeling or behaviour (which the person finds undesirable under specific circumstances), one can use this techniques. Conditioning means forming a new habit. Here, the person is going to form a new, desirable habit of thinking, feeling and/or behaviour through creating specific sensory images in ones' inner mind.

Age Regression Hypnosis

Age regression is one of the most universal hypnosis techniques used these days by hypnotherapists. Almost any problem or bad habit can be traced back to things that have happened in an individual's past. Through age regression hypnosis, the hypnotherapist gives suggestions to the patient that will help the patient to revisit thoughts or feelings that they have already experienced at points of their lives. This helps a patient remember to things that have been forgotten, which can help them to release that emotional trauma caused from an earlier time.

Hand Rotation Technique

Another method to effect deepening is to start the hands moving around and around one another. After the movements are well established, it is suggested, "As you move your hands around faster and faster, you go deeper and deeper." This technique is particularly effective if a person who has not been able to develop deep hypnosis observes another subject who is capable of deepening the hypnosis in this manner (Kroger, 1963; Crasilneck and Hall, 1985; Waxman, 1989).

1.7 Success of Hypnotherapy in alleviating symptoms of different diseases.

The research literature on Hypnosis is extensive. The endorsements of Hypnosis for its healing effectiveness continue to mount. In a recent report, it was revealed that a panel of the National Institutes of Health has endorsed the wider use of Hypnosis for use in conjunction with conventional medical care. Numerous clinical studies have been conducted substantiating the effectiveness of the Hypnotic state in changing individuals' lives. Some of these experimental studies have utilized poor controls for supporting generalization of results beyond the specific experimental trial reported. The research studies cited below are some of the thousands clinical trials that have utilized solid experimental technique and report reliable, valid findings. These studies report a sample of the multitude of applications of Hypnosis in human living.

Allergic or hypersensitivity reactions usually are not believed to be psychosomatic and thus are generally considered as unable to be influenced by suggestion. Some early literature suggested that many allergies might have an emotional basis and thus be treatable by hypnosis (Elman, 1964). Subsequent studies have shown that hypnosis may alter the body's physiological response to various stimuli (Black, 1963). In another trial, it was found that hypnotic suggestions for relaxation reduced helper/inducer cell percentages, helper/suppressor cell ratios, and natural killer cell activity compared with pre- hypnosis baseline values (Kiecolt – Glaser, Glaser, Strain, et.al, 1986). Other researchers have shown the positive effects of social support on natural killer cell activity and cortisol levels and the adverse effects of stress in patients with cancer, which has implications for cancer progression (Spiegel and Sephton, 2001). Hypnosis was associated with a significant reduction in both pain and flare reactions (Zachariae, Bjerring, Arendt – Neilsen, 1989; Zacharine and Bjerring, 1990). Numerous studies have shown benefits of hypnosis for pain relief (McGlashan, Evans and Orne, 1969; Spiegel and Albert, 1983; Spigel, Bierre, and Rootenberg, 1989; Zachariae and Bjerring, 1990; Patterson and Jensen, 2003). Pain relief afforded by hypnosis differs from that induced by acupuncture (Stern, Brown, Ulett and Sletten, 1977; Patterson and Jensen, 2003). Hypnosis with direct suggestions for pain relief produced significant pain relief compared with placebo and gave the best results of all the treatments (Lu. D.P., Lu. G.P., and Kleinman, 2001). A meta-analysis evaluated the use of hypnosis for pain relief in the preceding 20 years (Montgomery, DuHamel and Redd, 2000; Patterson and Jensen, 2003). Hypnosis has been used as the sole agent of anaesthesia for both major and minor surgical procedures (Rausch, 1980; Faymonville, Manbourg and Joris, 1997; Faymonville, Meurisse and Fissette, 1999). Brief hypnosis has been documented to be beneficial for anesthesia before excisional breast biopsies (Montgonery, Weltz, Seltz and Bovbjerg, 2002) and invasive radiological procedures (Lang, Benotsch, Fick, et al. 2000). Similar benefit was afforded to patients taught self-hypnosis, which was used during radiological procedures (Lang, Joyce, Spiegel, Hamilton and Lee, 1996). Evidence accumulated to date suggests that a number of Hypnotherapeutic approaches are highly effective in the treatment of patients with chronic migraine headaches (Melis, Roormans, Spierings and Hoogduin, 1991). Although no one hypnotherapeutic technique has been demonstrated to be most effective, all the methods appear to be superior to a standard treatment relying on pharmacological approaches alone. In a study conducted by Anderson (1975), migraine patients treated with hypnosis had a significant reduction in the number of attacks and in their severity compared to a control group who were treated with traditional medications. Olness (1987), self-hypnosis was shown to be significantly more effective. Schlutter (1980), hypnosis was also found to effective in dealing with the relief of tension headache (Anderson, 1975; Alladin, 1988). The hypnosis group had a significant reduction in the number, duration, and intensity of headaches. Instruction in self-hypnosis produced significant benefit for tension headaches in other studies including a group of less hypnotizable patients (Spenhoven, Linssen, Van Dyck, Zitman, 1992; ter Kuile, Spinhoven, Linssen and Zitman, 1994). Hypnosis was compared with propranolol use for children with migraine headaches in a prospective, randomized, controlled, crossover trial (Olness, MacDonald and Uden, 1987; Spanos, Liddy, Scott, et al., 1993). Few studies have evaluated the use of hypnosis for hypertension found to be effective in reducing hypertension (Friedman and Taub, 1977; Friedman and Taub, 1978; Galeazzi, 1982; Miller, 1986; Noland, 1987; Kuttner, 1988). One medical centre reported favourable results with the addition of hypnosis for patients with haemophilia (LaBaw, 1975; Swirsky – Saccetti, 1986; LaBaw, 1992). In research by Bernardi (1982), hypertensive patients showed themselves to be significantly more effective at controlling cardiovascular responses to stressors in hypnosis than they were in the normal waking state. In a study by Sletvold (1986), normotensive subjects were shown able to either increase or decrease their blood pressure significantly with hypnosis.

Ernest Hilgard (1977) and co-workers have used experimental paradigms to induce pain (typically either a tourniquet cutting off the circulation to a limb or plunging the limb into cold water).They have demonstrated that various types of pain can be reduced by hypnotically induced analgesia. Guerra (1982) found that only particular forms of the beta endorphins found in peripheral blood during painful experience are associated with the hypnotic response. Hilgard (1982) studied children with cancer. He found hypnosis to be effective in reducing the pain and discomfort associated with repeated unpleasant medical inventions (Stam, 1986). Speigel and Bloom (1983b) reported that hypnosis helped in reducing the pain of cancer patients (Spiegel 1989a). Both adolescent and adult cancer patients undergoing chemotherapy were reported by Zeltzer (1984) and Cotanch (1985) separate research, to have fewer symptoms of anticipatory nausea and vomiting following hypnotic interventions. Patients undergoing bone marrow transplantation treated with hypnosis experienced significantly less oral pain than control patients (Syrjala, Cunnings and Donaldson, 1992). Patients with metastatic breast cancer benefited from self-hypnosis and from participation in group support (Clawson and Swade, 1975; Spiegel and Bloom, 1983; Spiegel, Bloom, Kraemer and Gottheil, 1989). Chemotherapy often is associated with nausea and vomiting. Hypnosis has been studied for reducing these and other adverse effects (Zeltzer, Dolgin, LeBaron and LeBaron, 1991; Jacknow, Tschann, Link and Boyce, 1994). In a neurochemical study of hypnotic control of pain conducted by Domangue (1985), patients suffering from arthritic pain showed a correlation among levels of pain, anxiety and depression. There were clinically and statistically significant decreases in depression, anxiety and pain, and increases in beta endorphin-like substances due to hypnotherapeutic intervention.

Many experiments have evaluated hypnosis for eliminating warts (Sinclair – Gieben, and Chalmers, 1959; Calwson and Swade, 1975; Gravitz, 1981; Spanos, Villimas, and Gwynn, 1990; Ewin, 1992). Hypnosis has been used successfully for other dermatological conditions. Patients with atopic dermatitis noted decreased pruritus, scratching, sleep disturbance, and tension after treatment with hypnosis (Stewart and Thomas, 1995; Shenefelt, 2000). Hypnosis for Irritable Bowel Syndrome (IBS) has been studied extensively. Studies showed significant benefits from hypnosis (Whorwell, Prior, and Faragher, 1984; Wain and Amen, 1986; Whorwell, Prior and Colgan, 1987; Bierman, 1989; Bisbrow, Bennett, and Owings, 1993; Peebles – Kleiger, 2000). According to David Spiegel (1998) hypnosis can eliminate warts; and pseudo seizures.

Hypnosis has been used alone or in combination as anaesthesia for liver biopsy, esophagogastroduodenoscopy, and colonoscopy. Hypnosis reduced overall duration of the procedure (Zimmerman, 1998). No complications were noted, and patients were able to leave immediately afterward. In another report, patients with either anxiety or allergy to local anaesthetics safely underwent liver biopsies with use of hypnosis (Adams and Stenn, 1992). Half the patients in a pilot trial reached a moderate or deep level of hypnosis before colonoscopy evaluations (Cadranel, Benhamou, Zylberberg, et. al., 1994) with more than 80% noting only mild or no discomfort.

Domangue (1985) conducted a study on musculoskeletal disorders. He reported significant reductions of pain and dysphoria following hypnosis. The reductions were associated with significant increases in plasma beta endorphin. Barabasz and Barabasz (1989) used hypnotic technique known as Restricted Environmental Stimulation Therapy (REST). All of the patients were initially rated as having low Hypnotic susceptibility on the Stanford Hypnotic Susceptibility Scale (SHSS). Following exposure to the training technique, the subjects demonstrated significant increases in both SHSS scores and in pain reduction when compared to controls.

Several experiments have evaluated hypnosis for asthma, where the hypnosis group used bronchodilators less frequently and experienced less wheezing than controls (Maher-

Loughnan, 1962; Naher – Loughnan, Mason and MacDonald, 1962; Maher-Loughnan, 1970; Collison, 1975; Olness, 1985; Ewer and Stewart, 1986; Morrison, 1988). Patients with chronic tinnitus treated with hypnosis improved significantly (Attias, Shemesh, Sohner, Gold, Shoham and Faraggi, 1993). Patients with refractory fibromyalgia who were randomly assigned to receive hypnosis obtained significant improvement compared with those assigned randomly to physical therapy alone (Haanen, Hoenderbos, van Romunde et. al, 1991). Benefits included improvements in morning fatigue, sleep, muscle pain etc. Hypnosis strengthens the disease-fighting capacity of two types of immune cells, reports Ruzyla-Smith and her co-workers (1993).

Studies have discovered the potential for hypnotic suggestions to facilitate faster wound healing after injuries or surgery (Cheek, 1962; Ginandes and Rosenthal, 1999; Ginandes, Brooks, Sendo, Jones and Aker, 2003). Hart, 1980; Bennett, Benson, Kuiken, 1986 enhanced postoperative well-being,(John, Parrino, 1983) improved intestinal motility (Disbrow, Bennett and Owings, 1993) shorter hospital stay (Lambert, 1996), reduced postoperative nausea and vomiting, and reduced need for analgesics (Blankfield, 1991; Disbrow, Bennett, Owings, 1993; Ashton, Whitworth, Seldomridge, et. al., 1997; Enqvist, Bjorklund, Engman, and Jakobsson, 1997; Montgomery, David, Winkel, Silverstein and Bovdjerg, 2002).

Hypnosis as anaesthesia for childbirth has a long, successful history supported by several trials. A large trial compared a self-hypnosis group with a control group to study the effects of hypnosis on labor (Jenkins and Pirtchard, 1993). The hypnosis group reported less discomfort and shortened labor (Martin, Schauble, Rai and Curry, 2001). In another trial, the use of a single session of hypnosis (and encouraging home use of an audiotape) did not induce delivery in post term women (Omer and Sirkorvitz, 1987). Patients with hyperemesis gravidarum have benefited from hypnotic intervention (Simon and Schwartz, 1999; Torem, 1994). Long back in 1963, Schwartz reported a study in which hypnotherapy was used successfully to prolong pregnancy and prevent premature delivery (Omer, Elizur, Barnea, Friedlander, and Palti, 1986; Omer, Friedlander, and Palti, 1986; Omar, 1987). The medical literature from the 1960s indicated a strong potential of hypnosis for impotence (Elman, 1964; Freeman and Baxby, 1982; Fromm, 1987; Crasilneck, 1990; Aydin, Odabas, Ercan, Kara and Agargun, 1996; Aydin, Ercan, Caskurlu, et.al, 1997).

Hypnosis found to be effective in reducing weight (Mott, Roberts, 1979; Bolocofsky, Spinler, Coulthard – Morris, 1985; Kirsch, Montgomery, Sapirstein, 1995; Kirsch, 1996; Strabling, Roberts, Wilson, Lovelock, 1998). Hypnosis may be more helpful as part of a programme that includes arousing motivation, dietary counselling, and peer support (Fromm, 1987). Numerous studies have reported various techniques and outcomes in the use of hypnosis for smoking cessation, researches showed beneficial results (Kline, 1970; Speigel, 1970; Rabkin, Boyko, Hsane and Kaufert, 1984; Fromm, 1987; Crasilneck, 1990; Viswesvaran, Schmidt, 1992; Hughes, Sanders, Dunne, Tarpey and Vickers, 1994; Johnson and Karkut, 1994; Myles, Hendrata, Layher et. al, 1996; Ahijevych, Yerarbi and Nedilsky, 2000; Green and Lynn, 2000; Barber, 2001). Hypnotherapy and cognitive behaviour therapy found to be effective in reducing acute stress disorder (Bryant, Moulds, Nixon, Mastrodomenico, Felmingham and Hopwood, 2005); quality of life (Calvert, Houghton, Cooper, Morris and Whorwell, 2002); Raynaud's disease, Conn (1984). According to Marucha, Ronald Glaser and Kiecolt-Glaser 1991; Kiecolt – Glaser (1995) hypnosis can have a real practical value to patients facing surgery, since anxiety about a coming test is no different than anxiety over impending surgery. If the immune response can be maintained – even though not enhanced - then recovery from the surgery should be less problematic.

1.8 Dermatitis

The simple definition of dermatitis is inflammation of the skin. Many people think of dermatitis as synonymous with eczema but this is actually not true. Almost any rash can be thought of as dermatitis based on this definition - including psoriasis, skin cancer, and seborrhoea. However, we don't call every rash as dermatitis.

Dermatitis as co-morbid problem of people living with HIV/AIDS

Though dermatitis is medical disease which has organic causes but one of the aspects that affect dermatitis that worsen the condition is the roles of stress and emotion. As discussed earlier, Inflammatory and sensory skin disorders are significantly affected by stress and emotion. Griesemer (1978), who was both a dermatologist and a psychiatrist, developed an index of the effect of emotions on various skin disorders. The interactions of stress and emotion on the skin and skin disorders are mediated by the nervous system including autonomic nervous system, immune system, and hormonal system (Urpe, Buggiani and Lotti, 2005). The skin contains many millions of nerve endings that are closely connected to the body's control centre - the brain. The skin uses these close links with the nervous system to react to reflective and emotional events. This means that through hypnosis the sub-conscious mind can be educated to reprogram signals that are sent to the skin. When stress occurs in our lives, and we experience and block emotional difficulties, the skin reacts. It can't talk in words but its emotional language may be expressed by an appearance of rashes, eczema or an outbreak of psoriasis. As researchers learn more about the skin, the emotions and the brain, the key discovery appears to be the body's ability to turn intensely experienced ideas and fantasies into physical realities. A brief account of common dermatological problems in India mainly infestations (pediculosis capitis, scabies) and infections (pyoderma,molluscum contagiosum, warts, herpes simplex infection, varicella, herpes zoster,tinea capitis and corporis, tinea versicolor, and candidiasis) has been given. At the end, common pediatric dermatological emergencies have been short-listed. Erythema multiforme and its variants and acrodermatitis enteropathica are discussed briefly. In India, Chaturvedi, Singh, and Gupta Dermatologic disorders generally have a major impact on patients' daily activities, psychological and emotional state, and social relationships. The intensity of impact of skin disease on an individual person is extremely variable, however, and depends on natural history of the disorder; the patient's demographic characteristics, personality, character, and value; the patient's life situation; and the attitudes of society. Social stigma toward dermatologic disorders in the Indian society is quite widespread, especially toward leprosy. Dermatologists are expected to consider quality of life issues along with social aspects, nature of disorder, efficacy, and tolerability of various therapeutic options to optimize relief and comfort to their patient.

Same condition happens in case of people living with HIV/AIDS. Their immune system become weak because of spreading of HIV virus which makes their body more vulnerable to opportunistic diseases especially skin diseases or dermatitis. It is here that hypnotherapy can intervene to help cure skin diseases in patients with chronic psychosomatic skin afflictions that are non-responsive to other simpler approaches.

Dermatitis Types

People with advanced HIV infection are vulnerable to infection and malignancies that are called opportunistic infection because they take advantage of opportunity offered by a weekend immune system. There are several diseases but few have been selected under the head of dermatitis of different origins like acne vulgaris, psoriasis, eczema, herpes zoster, and atopic dermatitis.

a. Acne Vulgaris

Acne Vulgaris (commonly called pimples) is a skin disorder. Often occurs in puberty, though may occur in the 20s or 30s. Males have a more severe form of acne, and a later onset than females. Presence of open and closed comdons, pus pockets, raised, red areas of skin, pustular lesions most commonly on face, back, and chest, scarring may occur over time, pain, soreness, and itching may occur.

Eczema

Eczema appears as dry, cracking, crusting and red patches on the skin. Often there are swelling, weeping blisters. The skin can become inflamed and itchy. These symptoms often appear on the hands, feet, legs and even the ears. Small fluid filled blisters also can appear on the skin. These symptoms become inflamed with a burning and itchy sensation, which often leads to scratching. When this condition is scratched excessively, it can lead to infection.

b. Psoriasis

Psoriasis is an inflammatory skin disease in which skin cells replicate at an extremely rapid rate. The symptoms are build up on the skin's surface, forming thick patches, or plaques, of red sores (lesions) covered with flaky, silvery-white dead skin cells (scales).In psoriasis, an activated immune system triggers the skin to reproduce every three to four days, building up on the outer layers (epidermis and keratin). The epidermis thickens, blood flow increases and reddens the skin, and silver-gray scales cover it. The plaques of psoriasis occur most frequently on the elbows, knees, other parts of the legs, scalp, back, face, palms, and soles of the feet. Psoriasis can also affect the fingernails and toenails, causing pitting, discoloration, or tissue build-up around the nails (Bren, 2004).

c. Atopic Dermatitis

Atopic dermatitis is a chronic, relapsing, pruritic skin disorder of unknown etiology associated with personal and/or family history of atopy (out of place). Pruritis

(Itching), with popular lesion is the primary characteristic feature of atopic eczema, morphology and distribution of lesion differ with the age of the patient.

d. Herpes Zoster

Herpes Zoster and Varicella (Chicken pox) are caused by same DNA herpes virus. It may become active as a result of many factors such as aging, stress, suppression of the immune system and certain medication. It only affects outside the body or face during the outbreak. It begins as a rash that leads to blister and sores on the skin. The infection spreads along the nerves. Herpes causes wide range of problem affecting the skin, highly painful and are not life threatening. Some problems listed occur indirectly from the inflammation caused by the disease. Flu-like symptoms (fever, headache, fatigue), rash, red, sensitive, sore skin, blisters and sores on the skin, pain (may be burning or throbbing), itching and tingling.

1.9 Hypnotherapy as a treatment for skin diseases

Hypnosis is currently an underused therapy in dermatology. In appropriately selected patients, it can decrease or eliminate symptoms, and, in some cases, it can induce lasting remissions or cures of skin diseases. If you are a patient of a stubborn skin disease, talk to your dermatologist. Many dermatologists choose to refer patients with complex cutaneous surgical problems to competent specialists in dermatologic surgery. Likewise, many dermatologists choose to refer patients with complex psychosomatic dermatologic problems to competent specialists in hypnosis-assisted therapy. It is unfortunate to observe that very few doctors refer patients for hypnosis, though research studies show that hypnotherapy helps cure skin diseases very effectively. Some of the skin diseases where hypnotherapy helped cure to skin diseases are: verruca vulgaris, psoriasis, atopic dermatitis, urticaria, acne excoriee, alopecia areata, congenital ichthyosiform erythroderma , dyshidrotic dermatitis, erythromelalgia, furuncles, glossodynia , herpes simplex , hyperhidrosis, ichthyosis vulgaris, lichen planus, neurodermatitis, nummular dermatitis, postherpetic neuralgia, pruritus, rosacea, trichotillomania, vitiligo. Many trials have evaluated hypnosis for eliminating warts (Sinclair – Gieben, and Chalmers, 1959; Calwson and Swade, 1975; Gravitz, 1981; Spanos, Villimas, and Gwynn, 1990; Ewin, 1992). Hypnosis has been used successfully for other dermatologic conditions. Patients with atopic dermatitis noted decreased pruritus, scratching, sleep disturbance, and tension after treatment with hypnosis (Stewart and Thomas, 1995; Spiegel, 1998; Shenefelt, 2000).

1.10 Issues Related to HIV/AIDS

There are a lot of issues related to HIV/AIDS which worsens the psychological health of the people suffering with HIV/AIDS. Some of the important issues are:

Stigma: Stigma can be defined as, "an act of identifying, labelling , or attributing undesirable qualities targeted towards those who are perceived as being shamefully different and deviant from social ideals and as an attribute that is significantly discrediting (and is) used to set the affected person or group apart from normal social orders". Erving Goffman, 1963 originally developed the idea of social stigma. He identified certain dimensions that influence whether a personal quality or condition is stigmatizing. These dimensions are Concealability - Although concealability early in its course, later stages of HIV diseases is rarely hidden from others. Disruptiveness - HIV/AIDS disrupts social relationships. Aesthetics - HIV/AIDS physically disables and disfigures people, and is therefore aesthetically displeasing. Origin - The origin of HIV/AIDS is often, although not always, blamed on personal behaviors and choices. According to Ramamurthy social stigmas are classified as; sex, gender, race, class, and fear – related stigmas. The pre-existing sources such as those related to gender, sexuality and class, often overlap and reinforce another (Ramamurthy, 2004). A Dutch survey of people living with HIV found that stigma in family settings - in particular avoidance, exaggerated kindness and being told to conceal one's status - was a significant predictor of psychological distress. This was believed to be due to the absence of unconditional love and support, which families are expected to provide (ATLIS, 2010). Furthermore, people living with HIV are often worried about losing family and friends if they disclose their status. As a global study illustrated, 35 percent of those interviewed cited this as a concern surrounding disclosure (UNAIDS, 2010).

Discrimination: It can be defined as "an action or treatment based on stigma and directed towards the stigmatized "and as "sanction, harassment, scapegoating and violence based on infection or association with HIV/AIDS. Simply, stigma is the attitude and discrimination is the act, acting through discrimination, denial and shame, stigmatization in an impediment to HIV prevention and treatment. (Ross, Danwawi, et al 2003)

Media Discrimination - In India reach and influence of media on society is very high. Hence, it can play an important role both in positive and negative ways. Sometimes media is generating discriminating information about HIV/AIDS in terms of quality and quantity. Single misleading information could tarnish the life of people living with HIV/AIDS. Hence, it becomes more crucial that a journalist exercise the power of their pen to uphold ethical principles. (Gujarat report, 2007)

In the context of race, racism is the stigma and racial discrimination is the behaviour that gives expression to that stigma. Racism express itself through institutional norms, cultural values and individual and/or racial discrimination is "any distinct exclusion restriction or preference based on race, colour, descent or national or ethnic and fundamental freedom in political, economic, social, cultural or any other field of public life". (Aissata, De Diop, 2001). A study done on reducing AIDS related stigma and discrimination in Indian Hospital, (Mahendra, Gilborn, George, Samson, Mudoi, Jadav, Gupta, Bharat, and Daly, 2006), which concludes that, there is stigma and discrimination setting in Indian hospitals. Health care workers generally avoid HIV people's admission and treatment. So in such condition HIV/AIDS people conceal their HIV/AIDS status as far as possible.

In 2010, UNAIDS reported that 71% of countries now have some form of legislation in place to protect people living with HIV from discrimination (UNAIDS, 2010). However, Ban Ki-moon, 2008, Secretary-General of the United Nations, believes that 'almost all permits show at least some form of discrimination'.

Manifestation of Stigma and Discrimination

HIV/AIDS related stigma and discrimination take different form and are manifested at different levels societal, community and individual and in different context (Ramamurthy, 2004) are as mentioned below:

Legal Level: One important example; concerned limitation on international travel and migration. ***Institutional Level:*** In this educational and school – Stigma led to teasing by classmates. ***Employment at workplace***: Screening before employment of people living with HIV/AIDS, denial of employment to those; who tests positive. ***Health care system:*** HIV testing without consent breaches of confidentiality, denial of treatment and care, revealing serostatus to relatives without prior permission. ***Religious institutions:*** In some countries certain religious institutions have created perception that those infected persons have sinned and deserve punishment. ***Community and family level:*** Commonly in the form of blame, scapegoating and punishment. In extreme cases it has been in the form of violence. ***Individual levels:*** Fear of HIV/AIDS related stigma and discrimination may cause individual to isolate themselves and in extreme cases may lead to suicide (Ramamurthy, 2004).

To sum up, the stigma, discrimination, prejudice affects the psychological health of an individual especially in case of people living with HIV/AIDS (PLWHAs). However a respectful and open attitude on the part of each sector is required to improve the situation. These stigma and discrimination affects other psychosocial aspect of people living with HIV/AIDS like adjustment, health locus of control, self-confidence, coping skills, sensation seeking behaviour and subjective vitality.

1.11 Psychosocial Correlates: While considering psychosocial health there are certain aspects to be considered:

Self Confidence

There are several ways of explaining self-confidence but Basavanna, 1975 explained self-confidence as, "*a positive attitude of oneself towards one's self confidence refers to an individual perceived ability to act effectively in a situation to overcome obstacles and to get things go alright*". The socio-psychological concept of self-confidence relates to self-assuredness in one's personal judgment, ability, power etc (sometimes manifested excessively). Self-confidence is that ability to be certain about one's competencies and skill (Northouse, 2001). Self-confidence results from people belief that they will probably succeed at a task based on their previous success (David, 1992). For many men who have sex with men (MSM), low self-esteem and internalized homophobia can impact HIV risk-taking. Internalized homophobia is a sense of unhappiness, lack of self-acceptance or self-condemnation of being gay. In one study, men who experienced internalized homophobia were more likely to be HIV+, had less relationship satisfaction and spent less social time with gay people (Ross and Rosser, 1996). Male-to-female transgender persons (MTFs) identify low self-esteem, depression, feelings of isolation, rejection and powerlessness as barriers to HIV risk reduction. For example, many MTFs state that they engage in unprotected sex because it validates their female gender identity and boosts their self-esteem (Clements – Nolle, Wilkinson and Kitano, 2001).

Adjustment

In terms of psychological adjustment means the behavioural process of balancing conflicting or needs against obstacles in the environment, behavioural process by which human and other animals maintain equilibrium among their various needs or between their needs and the obstacle of their environments. A sequence of adjustment begins when a need is felt and ends when it is satisfied (Bell, 1934). In the general population, adjustment disorders are thought to be common, though prevalence rates vary by population studied. In studies of community samples of children, adolescents, and the elderly, prevalence estimates have ranged from 2% to 8%. In outpatient mental health settings, prevalence rates have been as high as 10% to 30%; while in general hospital inpatients, prevalence rates have been as high as 12% of those referred for a mental health consultation (DSM IV, 2000).

Nearly every cancer patient experiences what could be considered an identifiable stressor, whether that is diagnosis, treatment, recurrence, or side effects. The presence of an adjustment disorder is determined more by the patient's response to the identifiable stressor, and whether that response is considered in excess of what would be expected or results in significant impairment, typically in social or occupational functioning.

One study (Derogatis, Morrow, Fetting, et al., 1983) evaluated 215 randomly selected hospitalized and ambulatory cancer patients in three different cancer centers and found that of this group, slightly fewer than half (47% or 101 patients) met the diagnostic criteria for any mental disorder (DSM-III criteria). From this group of 101, 68% (69 patients) met the diagnostic criteria for an adjustment disorder. Of the entire 215 patients evaluated, approximately 32% were identified as meeting the diagnostic criteria for an adjustment disorder—the highest prevalence of any diagnostic category.

Additional reviews (Miovic and Block, 2007) have continued to find adjustment disorders to be the most common mental disorder. In patients with advanced cancer, prevalence ranges from 14% to 34.7%; in terminally ill patients, rates range from 10.6% to 16.3%. These variable prevalence rates are influenced by stage of disease, type of cancer, diagnostic procedures used, and other patient variables. In a study of women with breast cancer undergoing adjuvant chemotherapy, a 36.1% prevalence rate was found (Morasso, 1997). In another study of terminally ill Japanese cancer patients referred to a palliative care unit, 16.3% were diagnosed with an adjustment disorder at the time of their initial referral, and 10.6% were diagnosed with an adjustment disorder at the time of their admission to the palliative care unit. Of patients diagnosed with adjustment disorder at initial referral, 42% had progressed to major depression at admission to the unit, and 42% had no diagnosis (Akechi, Okuyama, Sugawara, et al., 2004). As the review literature showed that people suffering from chronic illness have problems in adjustment similarly people living with HIV/AIDS can also have problems related to adjustment. The adjustment problems may not be trait behaviour but may be because of their ill health and lack of coping skills that make them poorly adjusted at home, occupation, emotion or health.

Coping

An individual cannot remain in continuous stress; even if, a deliberate and conscious strategy is not adopted to deal with stress which means coping in simple term is management of stress or a process to overcome stressors or demand made on individual. Coping systems are developed in stage two of general adaptation syndrome. They cannot be habit/personality based or defined as a process to manage psychological stress (Lazarus 1999). In stress literature word coping has two connotations. Firstly; it denotes the way of dealing with stress and Secondly; an effort to master condition of harm, threat or challenge when a routine or automatic response is not readily available, efforts through to deal with demands that are perceived as taking or overwhelming, cognitive behavioural efforts of stress are called coping (Lazarus; 1997, Greenwood; 1996, Davis and Baladino; 1997). Researchers found that HIV positive people who live in pain use poor coping strategies to handle the stress of their condition. They have less energy and more limits on their physical, social and work activities. Vosvick (2003) reported that patient who use self-distraction techniques or "give up trying to deal with" HIV-related stress feel less energetic, and those who use self-distraction or drugs or alcohol to cope; they say that their health limits their social activities. The most common coping strategies for patients were self-distraction and "venting" about unpleasant feelings to relieve stress, according to the study. The 142 HIV-positive men and women studied said pain diminished their quality of life, affecting everything from their ability to carry groceries to their performance at work and at school. Forty percent reported having moderate to severe pain. "When treating patients with HIV, health care providers must attend not only to disease status but also to the individual's reports of pain," Vosvick said. "This is particularly important given that pain is often undertreated in AIDS patients." The investigators concluded that developing and encouraging more adaptive stress coping mechanisms should become a priority for HIV care, especially since so many patients are living longer lives. "Unfortunately, some coping strategies used to reduce immediate stress may incur a high cost in terms of poorer quality of life over time,"

Health locus of control

In social psychological locus of control refers to the extent to which individual believe that they can control events that affect them and their understanding (Rotter, 1954). People with high internal locus of control believe that events result primarily from their own behaviour and actions and those who have high external locus of control believe that powerful others, fate or chance primarily determines events. People with high internal locus of control have better control of their behaviour, tends to exhibit more political behaviour are more likely to attempt to influence other people than those with a high external locus of control. Those with a high locus of control are more likely to assume that their efforts will be successful. They are more active on seeking information and knowledge concerning their situation. One's locus (Latin for "place" or location) can either be internal (meaning the person believe that they control their life) or external (meaning they believe that their environment some higher power or other people control their decision or their life). Locus of control's most famous application has probably been in the area of health psychology largely to the work of Wallston,1976; seeks to measure locus of control in the health domain are reviewed by Furnham and Steele (1993). The most famous of those would be the health locus of control scale and the multidimensional health locus of control scale, or MHLL (Wallston, Wallston Devellis, 1978, Wallson, Wallson, Kaplan and Maiden 1978). The latter scale is based on the idea, echoing Leverenson's earlier work, that determination of a healthy lifestyle, powerful other, such as one's doctor, or luck. To investigate the relationship between health locus of control (HLOC), distress, and protease inhibitor (PI), utilization in gay/bisexual men in all stages of HIV illness. In addition to physical symptoms, the attribution of health status to chance or fate significantly predicted depressive symptoms, feelings of hopelessness, and recent life stress. Results also demonstrated a significant relationship between strong, positive beliefs in doctors and other health care professionals and PI utilization. The results of this study point to a strong association between beliefs that health status is related to chance or fate and distress. In addition, beliefs in physicians and other health care providers appear to contribute to decisions to initiate PI therapy (Evans, Ferrando, Rabkin and Fishman, 2000). Individuals who are suffering with HIV/AIDS also have some belief about the events occurring and its effect. For their HIV positive status they can blame others or blame themselves for their present condition. And if they are able to handle the situation then their internal or external blaming may reduce.

Sensation Seeking

Risk taking has been associated in research with sensation seeking (Rossi and Cereatti, 1993). The term sensation seeking was coined to describe the generalized trait that includes a diversity of risk-taking and sensation-seeking behaviours as well as the expressed intolerance of boredom. Zuckerman (1979) defined Sensation Seeking as "the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experiences". Zuckerman also stressed the need for theoretically based research on sports participation. There is much evidence of the growing popularity of high-risk recreational activities. Interest in extreme sports -- including sport climbing, bungee jumping, street-luge racing, and sky surfing -- culminated in the 1995 X Games, a multi-sport event sponsored by ESPN (Krulewitz, 1994). The degree of risk varies, and perceived risk may not be congruent with actual risk in these activities, yet these clearly are all sensation-laden activities. A person who is prone to sexual sensation seeking often attends parties, drinks to excess, is adventurous, seeks novel or different sexual experiences, may engage in unprotected sexual intercourse with multiple sexual partners, and may use illegal drugs (Boyle, Murray, and Boekeloo, 2002; Cronin, 1995; Kalichman & Rompa, 1995; Reece, Dodge, and Cole, 2002). In essence, sensation seeking has become synonymous with high-risk behavior (Kalichman and Rompa, 1995).

Both men and women who are high sensation seekers frequently drink more alcohol, have multiple sexual partners, and participate in more HIV risk behaviors, women who are high sensation seekers often pursue parallel careers such as firefighters, policewomen, or physicians (Cronin, 1995). Although sensation seeking has been explored among gay and bisexual men as a precursor to engaging in unprotected sex and having multiple sexual partners, little is known about the role of sensation seeking as a precipitant of risky sexual behavior among college students (Kalichman and Rompa, 1995; Kalichman et al., 1994). Even less is known about women and sensation seeking (Boyle et al., 2002). Above researches says that people living with HIV/AIDS shows high sensation seeking behaviour which may affect their other psychosocial aspects like anxiety, self-confidence, subjective well – being, subjective vitality, level of adjustment, coping skills etc. Though sensation seeking behaviour is a trait behaviour but improvement in any of the psychosocial aspect may lead to decrease of sensation seeking behaviour or at least the risk taking behaviour.

Subjective Vitality

As a philosophical expression, it was first used in the 1500's to refer to the essence of life and is often defined as an animating force, or principal of life. According to the American Heritage Dictionary for the English Language (4th Ed.), vitality means "full of life, animated, expressing continued existence, effectiveness." In essence, it expresses a general energy for life. As a subjective feeling, vitality has been variously defined as a sense of "feeling really alive," invigorated, or full of energy and enthusiasm for life. Various authors have used a number of terms like active, peppy, energetic, vigorous, lively (Purcell, 1982), and enthusiasm, zeal, zest, exhilaration (Shaver, Schwartz, Kirson, and O'Connor, 1987). It is interesting to note that in these adjective tests, affective terms such as happy, contented, pleased, elated, overjoyed, satisfied, cheerfulness, joy, the light, happiness, and satisfaction did not load on the factor described as vigour (Purcell, 1982 and Shaver, et al., 1987). Yet, these descriptive expressions may refer to anything from a momentary feeling in the emotional swing of everyday life to physical symptoms of fatigue and improper diet. Thayer & Moore (1972) noted that students who were given a test of intelligence under high stress (belief that the test would be used for predictive implications toward future college performance) showed both higher levels of tension and lower subjective feelings of energy than those taking the test under less stressful conditions.

The above discussed aspects are related to psychosocial health and when psychosocial aspects are affected it may cause psychosocial health problems like anxiety, depression, subjective well – being and in turn affect the quality of life.

Anxiety

Anxiety in general is defined as, a learned bodily reaction to danger; a form of self-centredness which is characterised by self – observation, doubts and low self-esteem (Krohne, 1975; 1994). Anxiety and anxiety-related conditions are the most common psychological afflictions of man and account for a major percentage of initial complaints to psychiatrists as well as to general practitioners. Although it is estimated that some 5% of the population may suffer from acute or chronic anxiety, with women outnumbering men two to one (Cohen and White, 1950), the numbers are probably significantly higher. Anxiety is a common symptom in HIV-infected patients. When anxiety symptoms are severe or persistent, patients may have an anxiety disorder. These disorders include panic disorder, generalized anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder (PTSD). Among HIV-infected patients receiving medical care, 20.3% have been found to have an anxiety disorder, with 12.3% meeting the criteria for panic disorder, 10.4% for PTSD, and 2.8% having generalized anxiety disorder (Vitiello, Burnam, Bing , et al, 2003).Patients with other psychiatric disorders, such as adjustment disorders, major depression, psychosis, or substance use disorders, can also present with significant anxiety. To help patients receive optimal care, clinicians need to be aware of the differences among these specific disorders. Furthermore, patients with histories of anxiety or mood disorders are susceptible to recurrence of anxiety symptoms during the course of HIV illness. There are many researches which shows that the people living with HIV/AIDS have high level of anxiety.

Depression

Depression can strike anyone; people with serious illness such as HIV may be at greater risk. Person with depression and HIV must overcome stigma. The core symptoms of depression are: lower mood, loss energy and interest ,a feeling of physical illness or of being rundown, poor concentration , altered appetite and sleep, slowing down of physical and mental functions , physical symptoms of depression includes headache, insomnia or oversleeping , indigestion , heartburn , change in appetite , unexpected weight loss, but more serious symptoms are thought of death or suicide , feeling of hopelessness ,helplessness or guilt, anxiety. Depression can be treated effectively by taking therapy, behavioural therapy, interpersonal therapy, cognitive/behavioural therapy or psychodynamic therapy (Cichocki, 2007). Chronic depression, stressful events, and trauma may negatively affect HIV disease progression in terms of decrease CD4 T lymphocytes, increases viral load and greater risk for clinical decline and mortality (Laserman, 2008). More research is warranted to investigate biological and behavioural mediators of these psycho immune relationships and the type of intervention that might mitigate the negative health impact of chronic depression and trauma. Young adults who suffer from anxiety and depression are much more likely to engage in high risk activities such as prostitution, both injection and non-injection drug use and choosing high risk partners. One study that followed inner-city youths for several years found that change in risk behavior was not associated with knowledge, access to information, counselling or knowing someone with AIDS. Reducing symptoms of depression and other mental health issues were, however, associated with reductions in HIV-related risk behaviours (Stiffman and Dore, 1995).

In a research by Burack (1998) it was found that T-helper counts of depressed patients dropped 38% faster than those patients who were not depressed. Depression has been shown to impair immune response in the laboratory; so there might be a direct effect of depression on the immune system. Also, depressed person may be less likely to seek out or stress to appropriate medical care for HIV and may be more likely to engage in risky or unhealthy behaviours. Similar evidence was found in the Stanford university study on the survival of women with metastatic breast cancer. It was found that the women who participated in the psychological intervention lived on an average of two years longer than those who did not. Another research on an intensive group therapy that focused on quality of life and stress management showed that chronically depressed people with HIV had a much steeper decline in their immune system over a five year period (Kemeny, 1991).

Quality of Life

The degree to which a person is able to maximize his or her physical, psychological, vocational, and social functioning and an important indicator of recovery from or adjustment to chronic illness. Study about the quality of life is important because documentation of exactly how illness affects vocational, social and personal activities, as well as the general activities of daily living, provides an important basis for interventions designed to improve quality of life (Devins, Mandin, Hon, Burgess, Klassen, Taub, Schorr, Letourneau, and Buckle, 1990; Maes, Leventhal, and De Ridder, 1996). Quality of life measures can help pinpoint which problems are likely to emerge for patients with diseases. Such a measure, for example, might indicate that sexual functioning is a problem for people living with HIV+ but that depression is more common problems for AIDS people (Schag and Heinrich, 1986). Eller (2001) studied 81 HIV positive individuals to find out the extent to which four blocks of variables predicted variance in quality of life. These included socio-demographics, depression, immune status, and fatigue. Findings revealed that work status, depression, and fatigue predicted 58% of the variance in QOL in persons with HIV.

Subjective Well – being

The subjective well-being is more commonly known as happiness. Well-being is multidimensional encompassing all aspects of human life. Subjective well-being can be simply defined as the individual's current evaluation of his/her happiness. Such an evaluation is often expressed in affective terms; when asked about subjective well-being, participants will often say, "I feel good" (Schwartz & Strack, 1999). Subjective well-being is thus, at least in part, a proxy for a global affective evaluation. Traditionally well-being has been identified with a single objective dimension: material progressed measured by income or GDP (Gross domestic products) GDP does not captive all aspects of human life but major aspect accessing a country growth. Often well-being has been equated with material position of a country but other aspects included as measuring education achievements health outcomes and environmental degradation etc have transcended the boundaries of their field incorporating findings from psychology and behavioral science into well-being research.

Subjective well-being could be objective or subjective. The objective well-being is measured through certain observable facts such as economic, social and environmental statistic on the other hand subjective measures of well-being captures people's feeling or real experience in a direct way assessing well-being in an ordinal measure. Mc Gillivray and Clarke (2006) state that, "Subjective well-being involves a multidimensional evaluation of life, including cognitive judgments of life satisfaction and objective evaluation of emotion and moods. Some economists use the phrase "Subjective well-being" as syndrome of happiness but in psychology, happiness is a narrow concept of subjective well-being. Despite the different economist used the term happiness and life satisfaction, interchangeably as measure of subjective well-being.

Keyes and Hadit's (2003) model of 'science of well-being' can be considered as one model, which rightly reflects the contribution of bio-behavioural and psychosocial intervention studies for lowering the disease progression and health promotion among people living with HIV and AIDS (PLWHA). In the last few decades, the focus is gradually shifting towards the study of the effect of positive emotions and psychosocial correlates on promotion of health behaviour and enhancing the immuno-competence to lowering the progression of disease and management of chronic diseases (Schneiderman, 1999; Schneiderman, Antoni, Saab, & Ironson, 2001; Taylor et al, 2001; Keyes and Hadit, 2003; Chesney et al, 2005).

A study on family ties, physical health and psychological well – being of elderly people. The quality of an individual's relationship with spouse, children and other family members was associated with personal feelings of well – being, but quality of such association had little impact on either physical or psychological health. So researchers working with elderly people should not assume that the presence of family members necessarily implies that social support affecting physical health and well – being will be forthcoming (Ryan and Willits, 2007). In another study done by Nathawat (1988), psychological well-being resides within the experience of the individual (Campbell et al, 1976). Meditation would also seem to have potential for enhancing psychological well – being especially if we include the spiritual dimension in our concept of happiness. A research done to examine the influence of illness intrusiveness and physician relationship on subjective wellbeing in people living with HIV/AIDS (PLWHAs) (Worthington, Deber, Urowitz and Myers, 2002); it was found that, as with other health conditions, illness intrusiveness negatively affects subjective wellbeing in PLWHAs. In addition, in this analysis we found that trust in physician and satisfaction with treatment decision-making role positively influences subjective health rating. Thus, a sound physician relationship is an important factor in enhancing wellbeing among PLWHAs.

1.12 Objectives of the study

1. To see the effect of hypnotherapy on psychosocial health parameters i.e., Multidimensional Health Locus of Control, quality of life of HIV+ individuals, subjective well being, self confidence, subjective vitality, anxiety, adjustment, sensation seeking, coping skills and depression of people with seropositive status (HIV+), HIV+ with Dermatitis and Dermatitis alone.

2. To see the effect of hypnotherapy on the disease progression of people with seropositive status with Dermatitis and Dermatitis alone through symptom alleviation/management.

3. To Study the comparative effectiveness of Clinical Hypnotherapy on people with seropositive status (HIV+), HIV+ with Dermatitis and Dermatitis alone.

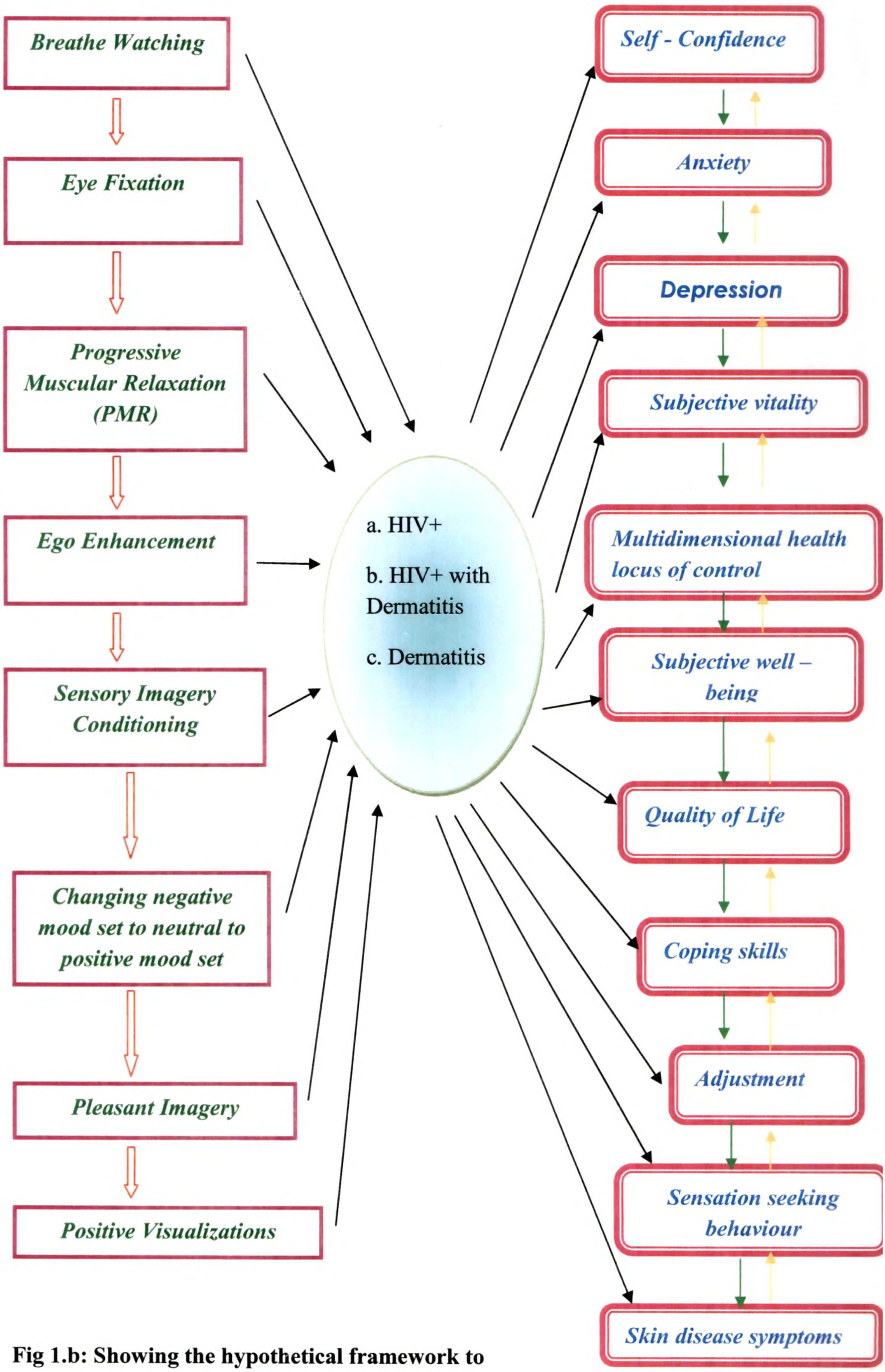


Fig 1.b: Showing the hypothetical framework to diagrammatically represent the research postulates.

1.13 Hypothetical framework to diagrammatically represent the research postulates. The figure b is showing the hypothetical framework to diagrammatically represent the research postulates, which shows how the research postulates are related to each other.

1.14 Research Design

The research design was prepared based upon the review of related literature and the research gap found in the researches. The research is divided into different phases. Phase I: planning and collection of information. Phase II: data collection and sampling, Phase III: pre testing, Phase IV: preparation of standard verbatims, Phase V: therapeutic sessions, Phase VI: Post testing and Phase VII: Follow – up.
Variables used in the study are: The independent variables in this research are Disease condition namely HIV+, HIV+ with Dermatitis and Dermatitis alone and intervention plan. Disease differs at three levels: HIV+, Dermatitis and HIV+ with Dermatitis. Intervention: Hypnotherapy. Combinations of different techniques used were: Progressive relaxation, Progressive Muscular Relaxation, Guided Imagery, Repetition, Breath Watching, Eye Fixation, Ego – Strengthening etc.

The dependent variables in this research are measures of Psychosocial health namely Multidimensional Health Locus of Control, Coping Skills, Depression, subjective well – being, Quality of life of HIV+ individuals, Self-Confidence, Subjective vitality, Anxiety, sensation seeking, adjustment level. Apart from this clinical assessment reports would be considered as dependent variable (In case of dermatitis and HIV+ with dermatitis individuals). The research design is shown in the Table 1a.

Table 1.14a: Showing experimental research design

Groups	Disease	No. of Subjs	Pre testing	Intervention (For 16 weeks)	Post Testing	Follow Up (After 2 months of post testing)
Experimental	HIV+	30	Psychological tests.	Hypnotherapy	Psychological tests.	Psychological tests.
	HIV+ with Dermatitis	30	Psychological tests and skin disease symptoms check up	Hypnotherapy	Psychological tests and skin disease symptoms check up	Psychological tests and skin disease symptoms check up
	Dermatitis	30	Psychological tests and skin disease symptoms check up	Hypnotherapy	Psychological tests and skin disease symptoms check up	Psychological tests and skin disease symptoms check up
Control	HIV+	30	Psychological tests.	NO Intervention	Psychological tests.	Psychological tests.
	HIV+ with Dermatitis	30	Psychological tests and skin disease symptoms check up	NO Intervention	Psychological tests and skin disease symptoms check up	Psychological tests and skin disease symptoms check up
	Dermatitis	30	Psychological tests and skin disease symptoms check up	NO Intervention	Psychological tests and skin disease symptoms check up	Psychological tests and skin disease symptoms check up
TOTAL		180				

1.15 Hypotheses

1. Self confidence

H_{01a}: There will be no significant difference between the experimental and control groups across their pre and post scores in self confidence.

H_{01b}: There will be no significant difference between the experimental and control groups across their post and follow – Up scores in self confidence.

H_{01c}: There will be no significant difference between the categories of diseases across their pre and post scores in self confidence.

H_{01d}: There will be no significant difference between the categories of diseases across their post and follow – up scores in self confidence.

2. Subjective well – being

$H_{02.a:}$ There will be no significant difference between the experimental and control groups across their pre and post scores in subjective well being at all the dimensions; general well – being positive affect, expectation – achievement congruence, confidence in coping, transcendence, family group support, social support, primary group support, inadequate mental mastery, perceived ill health, deficiency in social contacts, general well – being negative affect.

$H_{02.b}$: There will be no significant difference between the experimental and control groups across their post and follow - up scores in subjective well being at all the dimensions; general well – being positive affect, expectation – achievement congruence, confidence in coping, transcendence, family group support, social support, primary group support, inadequate mental mastery, perceived ill health, deficiency in social contacts, general well – being negative affect.

$H_{02.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in subjective well – being at all the dimensions; general well – being positive affect, expectation – achievement congruence, confidence in coping, transcendence, family group support, social support, primary group support, inadequate mental mastery, perceived ill health, deficiency in social contacts, general well – being negative affect..

$H_{02.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in Subjective well – being at all the dimensions; general well – being positive affect, expectation – achievement congruence, confidence in coping, transcendence, family group support, social support, primary group support, inadequate mental mastery, perceived ill health, deficiency in social contacts, general well – being negative affect.

3. Adjustment

$H_{03.a}$: There will be no significant difference between the experimental and control groups across their pre and post scores in adjustment at all the dimensions; home, health, social, emotional and occupational.

$H_{03.b}$: There will be no significant difference between the experimental and control groups across their post and follow up scores in adjustment at all the dimensions; home, health, social, emotional and occupational.

$H_{03.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in adjustment at all the dimensions; home, health, social, emotional and occupational.

$H_{03.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in adjustment at all the dimensions; home, health, social, emotional and occupational.

4. Anxiety

$H_{04.a}$: There will be no significant difference between the experimental and control groups across their Pre and Post scores in anxiety at the dimensions; state and trait.

$H_{04.b}$: There will be no significant difference between the experimental and control groups across their post and follow up scores in anxiety at the dimensions; state and trait.

$H_{04.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in anxiety at the dimensions; state and trait.

$H_{04.d}$: There will be no significant difference between the categories of diseases across their Pre and follow up scores in anxiety at the dimensions; state and trait.

5. Multidimensional Health Locus of Control

$H_{05.a}$: There will be no significant difference between the experimental and control groups across their pre and post scores in multidimensional health locus of control at the dimensions; Internal, Chance and powerful others.

$H_{05.b}$: There will be no significant difference between the experimental and control groups across their Post and follow up scores in multidimensional health locus of control at the dimensions; Internal, Chance and powerful others.

$H_{05.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in multidimensional health locus of control at the dimensions; Internal, Chance and powerful others.

$H_{05.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in Multidimensional health locus of control.

6. Sensation seeking

$H_{06.a}$: There will be no significant difference between the experimental and control groups across their pre and post scores in sensation seeking at the dimensions; thrill and adventure seeking, emotional seeking, disinhibition, and boredom susceptibility.

$H_{06.b}$: There will be no significant difference between the experimental and control groups across their post and follow up scores in sensation seeking at the dimensions; thrill and adventure seeking, emotional seeking, disinhibition, and boredom susceptibility.

$H_{06.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in sensation seeking at the dimensions; thrill and adventure seeking, emotional seeking, disinhibition, and boredom susceptibility.

$H_{06.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in sensation seeking at the dimensions; thrill and adventure seeking, emotional seeking, disinhibition, and boredom susceptibility.

7. Coping skills

$H_{07.a}$: There will be no significant difference between the experimental and control groups across their pre and post scores in coping skills at the dimensions; active coping, planning, seeking instrumental social support, seeking emotional social support, suppression of competing activities, turning to religion, positive reinterpretation and growth, restraint coping, acceptance, focus on and venting of emotions, denial, mental disengagement, behavioural disengagement, alcohol/drug use and humor.

$H_{07.b}$: There will be no significant difference between the experimental and control groups across their post and follow up scores in coping skills at the dimensions; active coping, planning, seeking instrumental social support, seeking emotional social support, suppression of competing activities, turning to religion, positive reinterpretation and growth, restraint coping, acceptance, focus on and venting of emotions, denial, mental disengagement, behavioral disengagement, alcohol/drug use and humor.

$H_{07.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in coping skills at the dimensions; active coping, planning,seeking instrumental social support, seeking emotional social support, suppression of competing activities, turning to religion, positive reinterpretation and growth, restraint coping, acceptance, focus on and venting of emotions, denial, mental disengagement, behavioral disengagement, alcohol/drug use and humor.

$H_{07.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in coping skills at the dimensions; active coping, planning,seeking instrumental social support, seeking emotional social support, suppression of competing activities, turning to religion, positive reinterpretation and growth, restraint coping, acceptance, focus on and venting of emotions, denial, mental disengagement, behavioral disengagement, alcohol/drug use and humor.

8. Depression

$H_{08.a}$: There will be no significant difference between the experimental and control groups across their pre and post scores in Depression.

$H_{08.b}$: There will be no significant difference between the experimental and control groups across their post and follow up scores in Depression.

$H_{08.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in Depression.

$H_{08.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in Depression.

9. Subjective Vitality

$H_{09.a}$: There will be no significant difference between the experimental and control groups across their pre and post scores in Subjective Vitality.

$H_{09.b}$: There will be no significant difference between the experimental and control groups across their post and follow up scores in Subjective Vitality.

$H_{09.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in Subjective Vitality.

$H_{09.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in Subjective Vitality.

10. Quality of Life

$H_{010.a}$: There will be no significant difference between the experimental and control groups across their pre and post scores in HIV/AIDS Quality of life at the dimensions; overall function, life satisfaction, health worries, financial worries, medication worries, HIV mastery, disclosure worries, provider trust, sexual function.

$H_{010.b}$: There will be no significant difference between the experimental and control groups across their post and follow up scores in HIV/AIDS Quality of life at the dimensions; overall function, life satisfaction, health worries, financial worries, medication worries, HIV mastery, disclosure worries, provider trust, sexual function.

$H_{010.c}$: There will be no significant difference between the categories of diseases across their pre and post scores in HIV/AIDS Quality of Life at the dimensions; overall function, life satisfaction, health worries, financial worries, medication worries, HIV mastery, disclosure worries, provider trust, sexual function.

$H_{010.d}$: There will be no significant difference between the categories of diseases across their post and follow up scores in HIV/AIDS Quality of life at the dimensions; overall function, life satisfaction, health worries, financial worries, medication worries, HIV mastery, disclosure worries, provider trust, sexual function.

11. Symptoms of Dermatitis

H_{011a}: The alleviation of dermatological symptoms in experimental group will be more as compared to control group in pre and post testing due to the application of hypnotherapy on HIV+ with dermatitis and Dermatitis people. Symptom alleviation is analyzed case by case using content analysis.

H_{011b}: The alleviation of dermatological symptoms in experimental group will be more as compared to control group in post and follow up testing due to the application of hypnotherapy on HIV+ with dermatitis and Dermatitis people. Symptom alleviation is analyzed case by case using content analysis.